

# AMENDMENT

## In the Specification

On page 50, please amend the paragraph beginning [00316] with the following:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT  
ACG ACT CAC TAT AGG GCG 3') (SEQ ID NO: 385)

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA  
GTA CGC GGG-3') (SEQ ID NO: 386)

Please substitute **TABLE 1** with the **TABLE 1** amended as follows:

**TABLE 1**

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt (SEQ ID NO: 1)	cgcttccgcaacaagtccttt (SEQ ID NO: 2)
C2	c-erb B-2	AB008451	507	gtgtttgatggtgacttgggaat g (SEQ ID NO: 3)	gtactccgggttctctgctgtag g (SEQ ID NO: 4)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggctcgtc tt (SEQ ID NO: 5)	ccatgctgcataaagggtgtga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtgggtg g (SEQ ID NO: 7)	cgagaggtagattgcccttct tt (SEQ ID NO: 8)
C5	Metallothionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgctt gaca (SEQ ID NO: 12)
C7	Metallothionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaatttccc at (SEQ ID NO: 15)	tggaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgccttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21 )	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcacacctcattggacct (SEQ ID NO: 23)	gctgttttgcctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	tttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttct g (SEQ ID NO: 27)	tttacatgagtgtcaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgtgttggaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatggt (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaattgaagcctttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttcttg a (SEQ ID NO: 35)	tgatggatacactgcatactct gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgttttctc ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein in CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF05483 3	301	tcacctcccaactgattccaact ctgg (SEQ ID NO: 43)	gtcttgttgccatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF07781 7	492	ctgtgcaactcccaaatcgta tca (SEQ ID NO: 45)	gtgcatatccctggctctcttgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB03202 5	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttctctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF09563 8	260	agcggtcagtggaaggaggt gg (SEQ ID NO: 49)	tgtccagggcacgatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagag caaggt (SEQ ID NO: 51)	acctgggtccgaaacatcga ggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaattgaacccaaacaaa ggca (SEQ ID NO: 53)	cccgcatcctctaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagaccttgttgatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatca aagac (SEQ ID NO: 57)	cacttcttctgtgaccacaat ccca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacgggtgctgtcactggatgaaa (SEQ ID NO: 59)	caccacaggtgccccactattcatgttt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgcactatcatcagagcatgccccc (SEQ ID NO: 61)	tccatcctaggaccccagagatcatgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggaccctttccgcgactggtagc (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cgggtccctgctggaggactttaaga (SEQ ID NO: 65)	ggtagacgggggttctccaagcagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacaccgt (SEQ ID NO: 67)	ttgccaacagcctcaaagaaacgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaacacacttc (SEQ ID NO: 69)	tggcaaatacacagagaaaacccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagaggtttcagccagtgcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagcgtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgcttcgtttgtgaaagg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaaggtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccctcgata (SEQ ID NO: 75)	tgtgtgtgtcaggggtgaagtgtttgg (SEQ ID NO: 76)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgtgctgtcctcctggt (SEQ ID NO: 77)	ggtcagtgaaaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacacccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF21125 7	498	tgattgttctctgccacaaaat gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB02098 6	503	gccttaccctcagggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB02698 8	510	aggtgtccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcggtcacctacttgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagctttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF01975 9	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF03922 3	359	ctccaggtgggcttcgaggac gt (SEQ ID NO: 91)	tggggccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF03202 5	350	ttctcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggaaggagc (SEQ ID NO: 95)	tcacgtagcccacttcgtccac (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggccacattgtgaaaactc agaaa (SEQ ID NO: 97)	gaccaaggcaaggtgaaa agggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc (SEQ ID NO: 99)	ttgcataggaagaaagtgg gctgtt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattgaaaatggagcctccag ggaat (SEQ ID NO: 101)	ataattccaagctggatggca gagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggat tttct (SEQ ID NO: 103)	atccttctctccttgccctctc ctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttctgctctcatggcc (SEQ ID NO: 105)	ctaaatacagcccgcgca gcg (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtcctcatgttcaga gggtg (SEQ ID NO: 107)	ccagatgtgcacccttgatga aggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttgagcaggtggtgttgga aaag (SEQ ID NO: 109)	gcaaatacacagaggaagc cttcgcc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagtggagctggtggcgtag gcaa (SEQ ID NO: 111)	ggcaaatacacaagaaag ccctccc (SEQ ID NO: 112)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C57	p38 MAPK	AF003597	506	ctggtagcccatcttatgggagcagat (SEQ ID NO: 113)	tttgcaaagttcatcttcggcatctgg (SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaattgatgtgtttctgtgaaaaaaggcag gcccctgccaaaagggtccgaatcggggtccccctctgctggaggccac agcaaactctctcacagcccactggcttaagagatgccatgtgtcca cccatcagcacactacgcgcacccccctccaccaggaaggactat ccgcccgaagagggcgagggtggacagtggtagagtcctgaaac agatcagcaacaaccgcaaatgtgccagccccagggtctcggaacg gaggagaatgacaagaggcgaacacacacgtcttgagcgccag aggaggaacgagctgaaacggagctcttctgcctgcgtgatcagatc cggagttggaaaacaatgaaaaggcccccaaggtagtgatccttaa aaaagccaccggtacatcctgtccgtccaagccgaggagcaaaag ctccttccgaaaaggactgttgcggaagcg  (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgttgatggtgacttgggaatgggggcagccaaggggctgcagagc cttccctcacaggacccagccctctccagcggtagtgaggaccct acggtacccttgcctctgagactgatggaagggtgccccctgacct gcagccccagcctgaatatgtgaaccagccagaagttggcgcgag cccccttgcctagaaggcccttgcctcctcccagccggctggtgc cactctggaaggcccaagactctgtccccaagactcttccccctggc aagaatggggtgtcaaaagcgttttgccttgggagtgctgtggagaat cggagtagctggcaccgaggggcagagctgcccctcagccccacc ctctccagcctcagcccagccttgacaacctgtattactgggaccag gatccatcagagcggggtctccaccagcaccttgaagggaaccct acagcagagaaccggagtagc  (SEQ ID NO: 116)



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcttcagggtcgtcttttgcctatcctgacactcaccgccac  cgctgggacccaactatcttcagatacctgtgaactgtccttccgggct  cgagtggccaactaccaacgggatggccccatgtcatgctcgacaat  cagggtggtgctccaaatactacccaatagcttagtgcctcgaaca  acagcgttgtgcttagagcatagcagccaatgttcgccagatgtgcag  cgctcaacagtgccaatgaagataatgtcactcagggtcggacctct  atttgaaggtagtggtaagaggagaggaaacgctgtgcgagaac  attgtggccatctgaaggacgcacaactttcatccagaagaagcg  gtcaagaactcagtgatgtccaccctgactacggggcccgattcagg  ctctttggacaaatacaatgctgagaaacctaagaacgcgattcacac  ctttatgcagcatgg</p> <p>(SEQ ID NO: 117)</p>
C4	p53	AF060514	<p>acttttcgacacagtggtggtgccttatgagccaccgaggttggtctt  gactataccaccatccactacaactacatgtgaacagttcctcatggg  aggcatgaaccggcgcccatcctcactatcatcaccctggaagactc  cagtggaaacgtgctgggacgcaacagctttgaggtacgcgtttgtcc  tgtcccgaggagagaccgcccgtgaggaggagaattccacaaga  agggggagcctgtcctgagccacccccgggagtaccaagcgagc  actgcctcccagcaccagctcctctccccgcaaaagaagaagccac  tagatggagaatatttcaccctcagatccgtggcgtaacgctatgag  atgttcaggaatctgaatgaagccttgagctgaaggatgccagagt  ggaaaggagccaggggaagcagggtcactccagccacctgaag  gcaaagaaggggcaatctacctctcg</p> <p>(SEQ ID NO: 118)</p>
C5	Metallothionein 2	AB028042	<p>gactccagccgccccttctcgcatggatcccaactgctcctgcgcgc  ggggggctcctgcacgtgcgcggctcctgcaaatgcaaaagagtga  gatgcacctcctgcaagaagagctgctgctcctgctgccccgtgggctg  tgcaagtgtgccagggtgcatctgcaaggcgcatcggaagaat  gcagctgctgtgcctgatgtggggagagcctattcctgatgaaataga  gagcaggtgtacaaacctacagttgtgggggtttttggtgctttgtttg  ggtccaactctgaccggttgctactacattcct</p> <p>(SEQ ID NO: 119)</p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactcctgccacaatgtacaaaatgcaactctgtctt  gcatgcactgacgctgtactgtcgaaacagtgacactattacttcaa  gctctacaaaggaaacagagcaacagatggagcaattactgtggtt  tacagtgtccttgaatggagttaataattatgagaaccccccaactctca  ggatgctcacatttaagtttacacgcccagaaggccacagaatttac  acaccttcaatgtctagcagaagaactcaaaaacctggaggaagtgt  aggttacctcaaaagcaaaaacgttactgacagacaccaaggaatt  aatcagcaatatgaatgaacactctgaaactaaaggatctgaaac  aagttacaactgtgaatatgatgacgagacagcaaccattacagaatt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctcgtctcgcctgcctc gcctcgcctcgcctcgcctgggctcgagatggaccccgactgctcctgc tccaccggtggctcctgcacgtgcgtggctcctgcaaatgaaggagt gcaaatgcacctcctgcaagaagagttgctgctcctgctgcccgtggg ctgtgccaagtgtgccagggtgcacatgcaaggggtgcgtcggaaca gtgcagctgtgtgcctgatgtgtgagaacacctgttctgtatataag agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgttttctacattccgtttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcagagctggaattccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcgacatgcccagg acaaccactgagcccatactcctcccgctactgacactgacctgtg ttagccgtctctccccatacgcacatctgctagtgtcacgatgacatcg ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtccatgaaactgccaacccctatgtgtccctgctggtcgtgttccat ctcgggtggcaccatacaaggacacagcactctggcagccaaattcct gcagagacgagggccctgcaggcagttggcagaagaggccggcga ggattcctgtccagctccgaagcttctctgttagtaataaagctgtct gtgggcgtgtgtgtgtgagtgaggagggtgtcatgtccagttggg agttctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagcccatcctgttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcatcgagacactc cctgagaatacaacaccagagtaggagacaaaggaacccagctct ctggtggccagaaacagcgattgcatagctcgctctgttagaca gcctcatatttgcctttgatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgatcgccaccgctgtccaccatccagaatgcagatt aatagtgggtttcagaatggcaaagcaaggagcatggcacacatca acagctgctggctcagaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtggatcggaggctccatcctggcctcgctgtccaccttc  cagcagatgtggatcagcaagcaggagtagcagagtcgggcccct  ccatcgtccatcgcaaatgcttctagatcgactcgagcagatgcgtag  catttgctcatgagtggaattccgaagtataaattggccctggcaatgg  ctagcctcatgaaactggaataagcgcttgaaaagaaattgtccttga  agctngtatctgatatacagcantggattgtagaactgttgcgtatctg  acnttgatccaagttaactgttcccttggtatgtttaataccgcctattcc  aggattctctagaggctggcaagagtcgaaccagttgtcatttctgtctg  ccggtctaacagggttggaagggtccgagccttaggacccactttcctgt  cttacccaatgtttctgcccagaacaccgtgggtggttaattgccttgaa  gttg</p> <p>(SEQ ID NO: 124)</p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagccctctgcccagacagtcacaaatcatct  tctgaaccccaagtgaagccagtagctcatgtttagcaaacc  gaagctgaggggcagctccagtggtgagccgacgtgccaatgacct  cctggccaatgacgtggagctgacagacaaccagctgatagtccgtc  agatgggtgtacctcgatagctcccaggctccttcaagggccaaggg  tgccctccacccatgtgctcctcacccacaccatcagccgcttgcgct  ctcctaccagacaaaggtaacctactcttgcctcaagagcccttgc  caaaggagacccagaggggaccgaggccaagccctggtacga  gcccctctacctgggaggggtcttccaactggagaaggggtatcgact  cagcgctgagatcaatctgcctaactatctggacttgcgagctgggc  aggctactttgggatcattgccctgt</p> <p>(SEQ ID NO: 125)</p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatcgccccctccgagtt  tctggcagcagcggtccatgacatcaagcacaagggtccggggc  agccgcatgacctggtgttgggtgcgcccagatgaggaccac  ctgtatcgggaggagatgttgagatggccagagtgggtgtgcat  gagggtgcacacagcctattctgcctgctggccagcccaaggtctatg  ttcaagacatcctgcggcagcagctggccagccaggtgctccgcatgc  tccatgaggagcagggccacctttatgtctgtgggatgtgcgtatggcc  cgggatgtggccataccctgaagcacctggtgggtgccaagctgagc  ctgagtgaagagcaagttaggactattttccagcttaagagccaga  agcgctatcatgaagatatcttgggtgctgtttccctatgaggtgaaaa  aagatggtgcagcaaaacagc</p> <p>(SEQ ID NO: 126)</p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagtttagctatttctggtaacc  cagtcctattaaagaaaagataactagatgagcatgatttgaagtca  gaggagatgttgtaaggaagaaatcaccagggtccgaagcgagc  aagagaatcccaggacagagaatccaagacagaaagatcttcagg  ggcctagaaatctgttctatggacccttaccacatgcccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggtgcacctctgtgggcttctgtgggaaggagccttc gttattcacctcagcaagggcactcatccagtggtagctgtcagccg gacgcctggacagaggacagtggcttccatgcgattgggcagatgtgt gaggcacctgtggtgacccgagagtgggtactggacagtgtagccctc taccagtccaggagctggacacctacctgatcccgagattcccaga actgctgcagact  (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggacccgggg aatgcacctgcatgtctggaggaatctgtatctgtggagacaattgcaa tgtacaacctgcaactgtaaacatgtcgaaaaagctgtgtcctgtctg ccccccggctgtgccaagtgtgccagggtgcatctgcaaggag gctcggacaagtgcagctgtgtgctgaaccgcatccgtggtgtctgg gctggcgggggcggggtgtggatgccacagccccgaaatgtctgt acagtgcattagttgagaaactgaaattattgtaccataggtatgctttta tatattgtctcagaggtggtggtgtgacactcatgtaaa  (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgtgttggaatatatccccataagcggtactgcactgttcctcac ccccggaacaggggtgaagagagctattctgtgtcccagggaatat attcacctcaagacgattccattgtgtacgaagtgccacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagctcagagaaccacctcagac aatgtcttagctgtctcaaatgccgaaaagaaatgaaccagggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtgctgcaggaagaac cagtaccggtttattggagtgaaccctttccagtgaataactgcagc ctctgctcaatggcacggtgcagatctctgccagagaagcagaac accatattcacctgccacgcggttcttctaagagagcatgaatgcg tctctgtgtgaactg  (SEQ ID NO: 129)
C16	c-kit	AF099030	gagacttggctgctagaaatatcctcctactcatggtcgaatcacaaag atttgtatttggctagccagagacatcaagaatgattctaattatgtggt caaaggaaacgctcggctacctgtgaagtggatggcccctgagagca tttcaactgtgtgtacacattgaaagtgtgtctggtcctatgggattttct gtgggagctcttctttaggaagcagcccctaccctgggatgccagtgc attcaaagtctacaagatgatcaaggaggctccggatgctcagccc tgagcatgcacctgtgaaatgtatgacatcatgaagacgtgtctggat gctgatccccgaaaaggccgacgtccaagcagatcgtgcagctaatt gagaagcagatttcagatagcaccaatcatatttccaacctgcga actgcagccccaaccagagcgccccgtggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaattgaagcctttctcaaggagataatgctaaacaacgaaatgaag  aaagaagaaaacattgcaatgcaaaaagggtgatcaggatcctcgaat  tgcagcccatgtcataagttaggctagtagtaaccagcgctcgttctgc  ggtgggcgccaaaagggtactacaccataagcagcaacctggtgag  cctcgagaatgggaaacagttggcgtgaaaagacaaggactctatta  cgtctatgcccaagtcacctctgctccaatcgggcagcttcgagtcaag  ctccgttcgtcgccagcctatgcctccattccccgagtggaaacggagag  agtcttactccgcgcgcgagctcccgcggtcgtccaaacctgcggc  caacagtcacccactgggaggagtattgaattgatccagggtgcttc  ggtgtcgtcaacgtgactgatccaagccaagtgagccacgggaccg  gcttcacgtctttggctactc</p> <p>(SEQ ID NO: 131)</p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttctggaggtaagaaatggaagtgatagcagt  tcaccattatttggcacatactgtggaactctgttgccagatctatcttct  cgaaacaacaactataacctacggttaagaccgatagcgcaactcc  aatcggtgggtatgaaattgtctggacctcatcacctctggtggtgga  accctttatggagacagtggttccttcaccagccccggtatcccgac  ttaccccaacaacactgactgtgaatgggccatcatgctctgctgga  agacctgtcacctgtcacctttactttatcagcatcatgatcccgagac  tgtgtccagaactatctcatactctacgatggaccggatgctaattctccat  cctttggaccatactgtggggcagacaccaacatagctcccttggggc  tctcacatcgtgtcttcataaaatttcacgcagagtatgcagtgtatccat  ca</p> <p>(SEQ ID NO: 132)</p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgagatggacgagaagtccaggggcaaggagct  ggatggcctgaacctcatcgacatctggaagaactcaaaccgagac  acaagcactctcactacgtctggaaccgcacggaactcctggccctcg  acccttacaccgtggactaccttgggtctttgagccgggggacatg  cagtacgagctgaacaggaacaacgtgactgacctgactctccga  gatggtggaaatagccatcaagattctgagcaagaacccagaggctt  cttctgctggtggaaggaggcaggattgaccacgggcatcacgagg  caaggccaagcaggcgtgcacgaggcagtgagatggaccgggc  aattgggaaggcaggcgtcatgacctcttgaagacacgctgaccgt  cgtcactgcgaccactccacgtctcaccttggcggttacacccc  cggggcaactctatcttgggtct</p> <p>(SEQ ID NO: 133)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C20	Pancreatic lipase	M35302	actcagagagcatcctcaaccctgatggattgcttctaccctgtgctt cctacagggccttgaatctaacaagtgttccctgccagatcaagg gtgccacagatgggtcactatgctgataaattgtgtcaagacaagt atgagacacagaaatacttctgaacaccggagattccagcaatttgc tgcgtggagatacggggtttctataacattgtctggaaaagagccactg gtcagggtcaagtgtgttgaagtaagggaataactcatcaattca atatctcaaggggattctcaaaccagggtctactcattccaatgagttg atgcaaagctgatgttgaacaattgagaaagtcaagtttcttgaata acaacgtggtaaacccaaccttccaaagtgggtgcagccaagatca ccgtgcaaaaggagaggagaaaacagtgacagcttctg (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggaccctccctcctgggccttatgcagggtta catgcagcacgccaccaagacggcccaggacacgctgaccagcgtt caggagtcccagggtggcgagcgggccaggggctggatgaccgata gctcagttccctgaaagactactgcagcacgtttaagggaagttcact ggggtctgggattcagcctctgaggccaaaccaactccagcctctg (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctccaactgattccaactctggctgttactagcactcaccagca ccttgtccacggacataactcaatattactattaaagagatcatcaaaa tgtgaacatctcacagcgagaaacgactcgtgcatggagctgactgt caaggacgtctcactgtctcaaagaacacaagcgataaggaaatctt ctgcagagctgtactgtactgcggcagatctatacacacaactgtcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	ctgtgtcaactccaaatcgtcatcaggggccaagttcgtggggaccgca gaagtcaaccagaccgacttaaacggcggttatgagatcaagatgac caagatgttcaagggttcagcgccttggggaatgcctcggacatccgc ttgcgtgcacaccccgccctggaaagcgtctgcggatactgcacaggt ccagaaccgcagcagaggagtttctggctgcggaaaacctgcgggac ggacactgcagatcaaacctgcagtttctggccccgtggagcagc ctgagtaccgctcagcgcggggctcaccaagacctatgctgtggct gtgaggggtgcacagtgttacctgttcatccatccctgcgaactgcag agtgacactcactgtgtggacggaccacttctcacaggctctgaca agggtttcagagccgcccactggcctgcctgccaagagagccaggg atatgcac (SEQ ID NO: 137)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C24	Ubiquitin	AB032025	gcagattttgtaaagaccctgacgggcaaaactatcacccctgaggtc gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggaggcatcccgcctgaccagcagcgtctgattttgcgggcaaac agctagaagatggcgaactctgtcagactacaatatccagaaagagt ccaccttgcacttggtgcttcgcctgaggtggcatcattgagcctcac tcgccagctggccagaaatacaactgagacaagatgatctgccg aagtgttatgtcgcctgcacccccgtgtgtcaactgccgaagaaga agt  (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcggtcagtgtaaggaggtggactctgggaatgacatctacggca acccatcaagcggattcagtagatcaagcagataaagatgttca aaggaccagacaaggacatagagttatctacaggctcctcctccgc cgtatgcgggtctccctggacatcgaggaaagaaggagtagtcatt gcgggaaggccgaggggaacggcaagatgcacatcaccccttggtg actcatcgtgccctgggaca  (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctgttcagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgcaggatgagtgctgaagcacacaacaattcacctcatcctgcgga gtctggaggattcctgcagttcagctgagggctgttcggataatgtagc ctgggcatctaagattgctgtagtcatgggcattccttctccagtcagaa acctgtgcagtgggcacaaaactatgttgtctgtgaggaactaaaa gtatgagcgttaggacactatttaattattttatattgatatttaatatg tgatatggagttatattatataagtaatatattttatgaagtgcc actgaaatatttatgtattcattttgaaaaagttaacgtaaaatgctatgc ggctgaatatcctcgatgttcggagccaggt  (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaattgaacccaaacaaaggcagagtacacagacactttatgttaa tgttgccccagggtatacaaccgtcgtggcagccctcctccatcgtgg aggaaggtagtcctgtgaacatgacctgcttagcgatggcctccagc tccgaacatcctgtggagcaggcggctaagtaatggcgctgcagtc tcttctgaggatccaattctcaccttaactctgcaaaaatggaagattct ggtattatgtgtgtaagggattaaccaggctggaataagcagaaaaag aagtagaattaattatccaagttgtccgaaagacatacagcttatagctt ttcctctgagagtgtaaggaaggagacactgtcattatctcctgtacat gtggaaatgtccaaaaactggataatcctgaagaaaaaagcagag acgggagacacagtgctaaagtccagagatgggtcatataccatcca caaggccagttagaggatgcggg  (SEQ ID NO: 141)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C28	Phenol sulfotransferase	D29807	<p>gctccccagacctgttgatcagaaggtaagggtggtctacgtgcc  cgcaacgcaaaagatgtagctgtctctattaccacttaccgcatggc  caagggtcaccctgaccctgacacctgggacagcttctggagaagt  catggctgggaagtgtctatgggtcctggtatcagcatgtgcaggaat  gggtggagctgagtcacactcaccctgttctaccttctatgaggaca  tgaaagagaaccccaaaaggagattcagaagatcctgaagttgtg  gggctcctgccagaggagactgtggtatctattgtccagcacagt  cttcaaggagatgaagaacaactccatggtaactacaccacttatct  cctgacatcatggaccacagcatttctgcttcatgaggaaaggcatctc  gggggactggaagaccacctcactgtggccagaatgagcgcttga  tgc</p> <p>(SEQ ID NO: 142)</p>
C29	GRP94	U01153	<p>aatcccagacatcccctgatcaaagacatgctgagcagagtaagga  agatgaagatgacaaaacggtatcggtatctgtgtggtttgttgagac  agcaacgctgagatcaggctatctgtctaccagacactaaagcatatgg  agatcgaatagaaagaatgcttcgctcagtttaacattgacctgatg  caaagggtggaagaagaaccagaagaagaacccgaagagacaacc  gaggacaccacagaagacacagagcaggacgatgaagaagaat  ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat  ctacagctgaaaaagatgaattataaattatactctcaccatttgaacct  gtgtggagagggatgtgaaatttaagtatttcttcgagagagactgtt  ttgatgtctcccgagcccccttctccctgcactgtaaaatgtgggat  tgtgggtcacagaaagaagt</p> <p>(SEQ ID NO: 143)</p>
C30	E-selectin	L23087	<p>ttacacggtgtgtcactggatgaaataattgccaaggagtttagggga  aacaacttggtcaaagtattctatcaccaacatgcaaaaaatatttaa  atgccacaggcgagtacatggggaatcctgctaatactttgtgcaa  ggattgctaaacacagtcctaattccctttaccctgtgggattcagtcac  tttaaagtgtcttagagattttaaagtgtcttttattgcatggcctaagtac  aatttccctaattcttaattcagtgtaagtgttagagactttaaataatg  catgttagagctatgatagggtaaaagtacttatcagggatctttgttatg  aagggactctaattgtatatctgtagtaaattcattttaaaggggcaaat  gctgtcccagattacgtgaatcagtgtaagtgtgtaattttactata  gttgcttttaaaaacatgaatagtggggcacctgggtg</p> <p>(SEQ ID NO: 144)</p>
C31	gastric lipase	Y13899	<p>tgactatcatcagagcatgctccctactacaacctgacagacatgca  tgtgccaatcgagtggtgaacgggtggaacgactgtggtggcaccct  cacgatgttgacctttgtcttcaagctcccaatctcatttaccacagga  agattctccttacaatcactggacttctctggccatggatgccctca  agcggttacaatgaaattgttccatgatgggaacagataataagtagt  ctagatttaaggaattattctttattgttccaaaatcgttctctcacacg</p>



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tggtttctatcatgtttgagacacggtgattgttccatggtttgattcaga aatgtgttagcatcaacaatcttccattggaattttgaatttaaatgattt ttaaattggggcatctgggtggctcagtcggctaagtcgtctgcctcgg ctaagtcgatctcggggtcctaggatgga (SEQ ID NO: 145)
C32	HSP27	U19368	ggacccttccgagactggtaccggcccacagccgctcttcgacca ggcttcgggctgccccggctgcccggaggagtgggcgagtggtcgg ccacagcggctggccgggtacgtgcccgatccccccgcggtcg agggccccgcccggcgccgcccggcgcccgcctacagcc gcgcgtcagccggcagctcagcagcggtgtcggagatccggca gacggccgaccgctggcggtgtccctggacgtcaaccacttcgccc cgaggagctgacggtcaagacgaaggacggcggtggtggagataact ggcaagcacgaagagaggcaggatgagcatggctacatctcccgcc gcctcactcccaaatacaccctgccccctggtgtggtacctaccctggtc tctcctcctgtcccctgagggcactctcacggtggaggctccatgcc caagccagccaccagtcggcagaaatca (SEQ ID NO: 146)
C33	IL-10	U33843	cgggtccctgctggaggactttaagagtacctgggtgccaagccctgt cggagatgatccagtttacttgaggagggtgatgccccgggctgagaa ccacgaccagacatcaagaaccacgtgaactccctgggagagaag ctcaagaccctcaggctgagactgaggctgcgacgtgtcaccgatttc ttccctgtgagaataagagcaaggcggtggagcaggatgaagagcgc atttagtaagctccaggagaaaagggtgtctacaagccatgagtgagtt gacatctcatcaactacatagaaacctacatgacaatgaggatgaaa atctgaaacgtgtgaggagaacaaaacaccaggatggcaactctctc gactctaggacatgaattggagatctgcaaaataccatcccagatgta ggagagccgaccaactgctggagaaccccgatcacc (SEQ ID NO: 147)
C34	caveolin-1	U47060	tccgagggggcacctctacaccgttcccatccgggagcagggcaacat ctacaagcccaacaacaaggccatggcggaggagatgagcgagaa gcagggttacgacgcgcacaccaaggaaatcgacctggtcaaccgc gaccccaagcatctcaacgacgacgtggtcaagattgatttgaagatg tgattgcagaaccagaaggaacacacagtttgatggcatctggaagg ccagcttcaccaccttactgtgacaaaatactggtttaccgctgtgtc tgccctctttggcatccaatggcactcatatggggcatttacttggcattc ttcttctctgcacatctgggcagttgtgcgtgcattaagagttctgattg agattcagtgcatcagccgtgtctattccatctacgtccacaccttctgtga cccgttcttgaggctgttgcaa (SEQ ID NO: 148)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C35	H-ras, p21	U62092	accatccagctcatccagaaccacttcgtggatgagtagcagccccacc atcgaggactcctatcggaagcaagtggcattgacggggagacgtgc ctgctggacatcctggacacagcgggccaggaggtagacagcgccat ggggaccagtagatgcgcacgggggagggcttctctgtgtatttggc a (SEQ ID NO: 149)
C36	rab2	M35521	agacaagaggttcagccagtgcacgtgactatcggtgtagagttg gtgctcgaatgataactattgatgggaaacagataaaacttcagatag ggatacggcagggcaagagtccttcgttccatcacaaggatcatattac agaggtgcagcaggggcttactagtgtatgattacaaggagagata cattcaaccacttgacaacctggtagaagatgccgccagcattccaa ttcaacatggcattatgcttattggaataaaagtgatttagaatcaag aagagaagtataaaaaagaagaaggtaagctttgcacgagaacat ggacttatctcatggaaactctgctaagactgctccaatgtagaagag gcatttattaatacagcaaaagaatttatgaaaaatccaagaagga gtcttgacattaataatgaggcaaacggcattaaattggccctcagca cgctgtactaatgccacacac (SEQ ID NO: 150)
C37	rab5	M35520	aagcctagtgcctcgtttgtgaagggccaaattcatgaattcaagagag taccataggggctgctttctaaccctaaactgtgtgtctgtatgataaac agtaaagttgaaatatgggatacagctggtaagaacgataccatag cttagcaccaatgtactacagaggagcacaagcagccatagttgtatat gatatacaaatgaggagtccttgccagagccaaaaactgggttaa gaacttcagaggcaagccagtcctaactgtatagctttatcaggaa acaaggctgatcttgcaataaaagagctgtcgattccaggaagcac agtcctatgcagatgacaacagtttattatcatggagacatcagctaaa acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagttgc caaagaacgaaccacagaatccaggagcaaatctgccagaggaa gaggagtagaccttactgaaccacgcagccaa (SEQ ID NO: 151)
C38	rab7	M35522	ccccaacacattcaaaacctcgatagctggagagatgagtttctatc caggccagtcctcgggatcctgaaaactcccttcgtgtgttgggaaa caagattgacctcgaaaacagacaagtgccacaaagcgggcaca ggctgtgtctacagcaaaaacaacattccctacttcgagaccagtc caaggaggccatcaatgtggagcaggcgtccagacgattgaagga atgcacttaaacaggaaacagaggtggagctgtacaatgaattccctg aacctatcaaaactggacaagaacgacggggccaagacctcagcgg aaagctgcagttgctgaagggcagtgagagcagagcacagagtcct tcacaaacaaagaacacacttaggccttcaacacgagcccccttcttc

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tcttcaaaacaaaacataaagtcattctctgaatccagctgccaaaaga ccctaccaaacacttcaccctgacacacaca (SEQ ID NO: 152)
C39	APO CII	M17177	ctggttctgtgcttgcctcctggtattgggattgaggtccagggggccc atgagtcaggcaagatgaaaccaccagctccgacctgctcaccag atgcaggaatcactctacagttactggggcacagccagatcggtgcc gaggacctgtacaagaaggcataccaactaccatggatgagaaaaat cagggaacatatacagcaaaagcacagcagctgtgagcacttacgca gggatttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgcctctgtccccctgttgcgcagcaggcaagggccaggtggc cgctgccccggagcatccagcaccctcagcccggggccagggctccc acctgcggcctcggcgttgcctgcagctcctggctcgacaaggagtg cgtctactctgccacctggacatcatctgggtgaacactccgggtgag ctccccggggagccaggcggggctgtagaggcggggcaggggg tggggaacctgtagtagcacagctcctcctgggctccagacggatc gctgagctgacatgaagagcggcgtgggtgtgtcctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttcttccacaaaatgccagtagtaacaaacccatcgata ggaaagtattttgttctgtgcagctctgattgggccatggagcgcg gaactggacttccaagacaaatggtaccagcgttcttaaaaagatg ccttaattccattctcgagggtagccttagtgagatgatagcagactgt actccccctcggcagctggccttctgccctgagttgcaggttaacagatt agcctgtattctctcagtggtatttgataatggctccagattcattggcgtt aggggaagcctttagaatcttcacgtgtcatcgtcgaaattgaaactg agtgttctgctgatggtttggagatacttcatcttttaagggttgctctg tctaattctggcaggacctcaccaaaagatcgggcctcgtagcaacgctc agacacgatgtcgccgtgtgtgcgttctgtattta (SEQ ID NO: 155)
C42	leptin	AB020986	gccttaccctcaggaccttgattccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgagcagctgaac cagcgactcctcagcaggcggaaatgctgaactgagaatgtcagtg ctcagggggccacaggctaaccctgtcccactctgtagcattttgctttt cagggcacggcagcattattactgtgtagccacatccctctgaagcag cagcatagctgacaatttaaaataagaactaagaacatacctaagac cataacggcagacaagtagcagggccgagactagagttcaggacct ctgactcccagagtgctccgggagccaggaatgctccctggagggtgc aaatagggttggcaggggagaccagaagtgttacaggagagag gacttgagggtgattttgcaggaggtgagggatgtgaattgcctgaatgg

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			cggaggctgtttgtcatgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	aggtgtccctgcagcccaactccaacaggataagttctggggcgctg gttcacctcgggctcgctccaactcgagctggttcgggagaagaa gaacgtgctgtccatgtgtatgtcagtggtggccccgaccgcagacgg aggcctcaacctcacctccaccttctcaggaagaccagtgtagac tcgaaccctgtcctacggccggcggaacccgggctgtacagcta cacgagtcctcactggggcagtagccacgacgtgtgggtgtagcca ccaactacgaggagtacgcgttctctacaccgaggcagcaaaaggc ctcggccaggactccacatggccactctctacagccgcaccagacc ccaaaggccgagataaaggagaaattcagcacctttgccaagacc agggcttcacagaggatgccattgtctcctgccacagactgataaatg catggaggagaacaagtaggtgaccgccgcc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagcttttcccagataagcctggaggatattaatgat ggatctaaaaaaggaaaacccgagggcactggaattaagaatcagc cgtgggttcaatttgctcgtcaatccacatggtatcagcacctcatag acagcgacgacacagttatctcttgtgtaaacctccagaattcaag aatacagtggaatttttaattgaagaagaagaaaattctcttgc ctaaaaacaatcaaacatgaacttctccaagtgtgaatgatcatagc tgttgaccagcacatttctatgcccaatgaccactatttctctgac tctaaagtatttgaaacatactgaacttacactgggcaaatgtgtta ctacagtcagatgaagtaaagtggtagcagaagggttgatgcagc aatgggatcaatattcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtgtcaacagttactactcttggtacag actatgggcacatggagggtgattcagctgcagctggccaccgagttga gaactggataggacctaccagaaaccaataatccagagcgagtacg gggcagagacaattgcaggctccaccaggatccacctctgatgttcag tgaggagtaccagaaaggctctgctcgagcagtatcacttggtgctggat cagaaacgcaaagaatatgtggttgagagctcatctggaatttgc atttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcatctcactgcgcagagacaacccaaagcggcgcccttctttgc gagagaggtactggaaactgccaatgaaaccgggaccaccggtc cgcgccaagtcccagtggttgaaaacagcccgctgcctctgaag cctctgtct (SEQ ID NO: 159)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C46	caveolin-2	AF039223	ctccaggtgggcttcgaggacgtgatcgcggaagccgtgtctacgcact ccttgacaaagtgtggatttcagccatgccctgttgaggcagcaagt acgtgatctacaagttcctgacgttgctcctggcgatgccatggccttcg cggcaggggttctctcgccaccctcagctgctgcacatctggattata atgcccttcgtgaagacctgcctcatggtcctgccttcggtgcagaccata tggaagagtgtaacagatgctgtcattgccccgttggttaagtgtagg acgcagcttctctctgcagctgcaagtgaagtcacgactgagcacttgg accca (SEQ ID NO: 160)
C47	matrix metalloproteinase-14	AF032025	ttctcaaaggagacaagcactgggtgttgatgaagcttcttgaacct ggctacccaagcacatcaaggagctgggaggactgctactga caaaatcgatgctgctctcttctggatgccaatgaaagacactacttct ccggggaaacaagtattaccgtttcaacgaggaactcagggcagtg acagcgagtaccccaaaaacatcaaggctggaaggaatccctga gtctccagagggtcattcatgggcagtgatgaagcttcactacttcta caaggggaacaaatactggaaattcaacaaccagaagctgaaggta gagccaggcta (SEQ ID NO: 161)
C48	matrix metalloproteinase-9	AB006421	gatttccaagggaaggacgcccgggtgcagggcccttctatcac cgagcacgtggcctgcgctgccccgcaagctggactccgctttgagg acgggctcaccaagaagacttcttctctggtggcgcaagtgtgggtg tacacaggcacgtcgggtgtaggcccaggcgcttggaagaagctggg cctgggcccggaggtacccaagtcaccggcgccctccgcaagcgg ggggtaaggctgctgttcagcaggcagcgttctggagttcgacgtg aagacgcagaccgtggatcccaggagcgccggtcgggtggaacag atgtacccgggggtgccctgaacacgcatgacatcttcagtagcaag agaaagcctacttctgccaggaccgcttactggcggtgaattctcgg aatgaggtgaaccaggtggacgaagtgggtacgtga (SEQ ID NO: 162)
C49	IL-8	U10308	gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga aatgaggtgtgcctggacccaaggaaaaatgggtacaaaagggtgt gcagatattttaaagaaggctgagaaacaagatccgtgaaacaaca aacacattctgtgtttccaagaattcctcaggaaagatgccaatgag actcaaaaaaatctatttcagtacttcatgtccgtgtagacctggtgtag gattgccagataaaaatacagtatgccagtagattgaatattaagta aaacaatgaatagtttttctaaagtctcatatgttgccctattcaatgt aggcacacttacattaacatatttattgtttgctgtaaatcaaatgta gctggaaatcctggatatattttgtgtgtacatcttccacctcacctaca ggccaggatgcatgagtcctttcaacctgccttggtc (SEQ ID NO: 163)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C50	keratinocyte growth factor	U80800	caatgacatgactccagagcaaatggctacaaatgtgaactgttccag ccctgagcgacatacaagaagtattgattacatggaaggaggggat aagagtgagaagactcttctgtcgaacacagtggtatctgaggatgat aaacgaggcaaaagtcaaagggaccaagagatgaagaacagttac aatatcatggaatcaggacagtggcagttggaatgtggcaatcaaa ggggtggaaagtgaatattatctgcaatgaataaggaaggaaagctct atgcaaagaaagaatgcaatgaagattgcaacticaagaattaattct ggaaaaccattacaacacatgcatcagctaaatggacacacagcg gaggagaaatgtttgtgcttaaatcaaaaggggttctgtaaggggg aaaaaaacgaagaagaacaaaaaacagcccactttctctatggc aa (SEQ ID NO: 164)
C51	decorin	U83141	gattgaaatggagccttccagggaatgaagaagctctctatatccgc attgctgataccaatataactaccatccctcaaggcttctctctccctac tgaattacatcttgaaggcaacaaaatcaccaaggtgatgcatctagc ctgaaaggactgaataatttgctaagttgggactgagtttaacagcat ctccgctgtgacaatggcactctagccaacactcctcatctgaggggag ctctacttggacaacaataagctcatcagagtaccgggtgggctggcg gagcataagtacatccaggtgtctacctcataacaacaatatactgc agtcggatctaatactctgccacctggatacaacacaaaaaggct tcttattcaggtgtgagcctttcagcaaccagtcagtagtgaggagatc cagccatccacctccgggtgtgtctacgtgcgtctgcatccagcttga aattat (SEQ ID NO: 165)
C52	glucose-6-phosphatase	U91844	ctggggatctcagctgcaggattttctacctgtcccatcctacaagaaaa gggaaaggagcagtggttgatagagaagaagaatggattaagg aaagacttctgtatcctgcatacatgcaaatcatgttacacaaaatct aaatcgcttgattatattgaatttttagtaaggaactcaatagtgggg gaccaactaaagcataactaataggtagttaatggggtaattctgctct tctatgtttctactatgtattcagtgacctagattgtgctgggtcagagcatt cagatatagtcagcttctctacactacatcttctcctgtcagcctag ctgagcttccctagaactttccactgctctacatcgtgctgacacagaga tgctaaaggcagctctagggtagtgtttgtatggttttagtcaagctctg aaatctgggcaaaaaggtaggagaggggcaaggagaggaaagg at (SEQ ID NO: 166)
C53	TGFB1	L34956	gacccttctgtcctcatggccaccccactggagagggcccagcacc tgcacagctcccggcagcgccggccctggacaccaactactgcttca gctccacggagaagaactgctgcgtccggcagctctacattgacttccg caaggatctgggctggaagtggatccatgagcccaagggttaccacg ctaactctgctggggccctgcccctacattggagcctggacacgca

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gtacagcaaggctctggccctgtacaaccagcacaacccggcgcggt cgccggcgccgtgctgctgccgcaggcgctggagccactgcccac gtgtactacgtgggcccgaagcccaagggtggagcagctgtcgaacat gatcgtgctcctgcaagtgcagctgaggccccgccccgctccggcag gccccgcccaccggcaggnccggccccgccccgccccgctgcgcc gggctgtatttaag  (SEQ ID NO: 167)
C54	ZAP36/annexin IV	D38223	gacacgtcctcatgttccagaggggtgctggtgctgctgcggccggtg cagggaatgaaggaaatttctggacgatgctctcatgagacaggatgct caggacctgtatgaggctggagagaagaaatggggaacagatgagg tgaaatttctgactgttctgctcccgaaccgaaatcacctgttgcatt gttgatgaatacaaaaggatatcacagaaggatattgacagggtatt aaatctgaacatccggtagcttgaagatgctctgctggccatagtaaa gtgcatgaggaacaaatctgcatacttctgaaaggcttataaatctat gaagggttgggaacagatgataacaccctcatcagggttatggtgtct cgagcggagatcgatatgatggacatccgggagagctcaagaggctt tacggaagtctctgtactcctcatcaagggtgacacatctgg  (SEQ ID NO: 168)
C55	N-ras	U62093	gttgagcagggtggtgtgggaaaagcgactgacaatccagctaact cagaaccactttagatgaatatgatccaccatagaggattctaccg aaaacagggtggttatagacggtgaaacctgtctgttgacatactggat acagctggtcaagaagagtacagtgccatgagagaccaatacatgag gacaggcgaaggctcctctgtgtatttgc  (SEQ ID NO: 169)
C56	K-ras	U62094	gtagtggagctggtggcgtaggcaagagtgcctgacgatacagcta attcagaatcactttagatgaatatgatcctacaatagaggattctac aggaaacaagtagtaattgatggagaaacctgtcttggatattctga cacagcagggtcaagaggagtacagtgcaatgagggaaccagtacatg aggactggggagggtcttctgtgtatttgc  (SEQ ID NO: 170)
C57	p38 MAPK	AF003597	ctggtagcccatcttatgggagcagatctgaacaacattgtgaaatgtca gaagcttacggatgaccatgttcagttccttatctacaaattctccgagg tctcaagtataacattcagctgacataattcacagggaacctaaaacct gcaatctagctgtaataagactgtgagctgaagatcctggacttgg actggcccgacatacagatgatgaaatgacaggctatgtggtaccag gtggtacagggtcctgagataatgtgaactggatgattacaaccag acagttgatatttggcagtggtgacataatggccgaactgttgactgg aagaacgtgttctggtacagaccataattgatcagttgaagctcattta agactcgttgaacccagggtgctatctttgaagaaaatctcctcag

**TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**

ID#	Gene Name	Accession Number	Target Sequence
			agtctgcaagaaactacattcagtccttgaccagatgccgaagatgaa ctttgcaaa  (SEQ ID NO: 171)

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays**, amended as follows:

**TABLE 3 50-mer target sequence for canine arrays**

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	cgggctcctcagcagggggcccgaggtacaat aaaccagtttggtggctcc  (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaagcctgacatcc cctggtcaggtggtgagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc  (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactctaactctggg aaatgtacaaggatagt  (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:



Table 6				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAA TTGCACT GAA  (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG  (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTTGAAATACCTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGGCCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC (SEQ ID NO: 179)
C65	Super- oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA  (SEQ ID NO: 180)	TCTCC CAGTT GATTA CATTC CAAA  (SEQ ID NO: 181)	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAGATTGCTGCT TGTTTTAACCAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGGCC (SEQ ID NO: 182 )
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A  (SEQ ID NO: 183)	TGGCA GCCAA ATTCT CATTC  (SEQ ID NO: 184)	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCGCAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACCACAGCGAGTCTGGAGGACA TCCCCTTGAATTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAAATCCTCAATTACTGCAGCAAATT AGCCAGCACCAGGAGCATTATTTATTAGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCTGAAGG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGGCC (SEQ ID NO: 185)

C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C  (SEQ ID NO: 186)	AGTGT CCCAT ATCCG CAATT TT  (SEQ ID NO: 187)	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAAGTGGAAA TGGAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAGTTCAACTAACTTTTGCCTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTGTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC  (SEQ ID NO: 188)
C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT  (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG  (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATAACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTGTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Glutathione S-transferase alpha subunit	CAGAGA AGCCCA AGCTCC AC  (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCCG  (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCGTGTGTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR-	GTCCGTG	CACCG	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC

	cadherin	GCAGAG TCCCTCA GCTCTAT  (SEQ ID NO: 192)	TGATG CCACA TAGCT ATCTT CG  (SEQ ID NO: 196)	TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTTT GTAGGACACAATCATTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)
C71	N- cadherin	GGAGCC TGATGCC ATCAAG CCTG  (SEQ ID NO: 198)	GGTTT GCAGC CTATG CCAAA GCC  (SEQ ID NO: 199)	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGA GGTGATGACTGAACTTCAGGGTGAAGTTGGTC TTTTGGACAAGTACAAACAATTTCAACTGATAT TCCCAAAAAGCATTGAGAAGCTAGGCTTTAAC TTTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC (SEQ ID NO: 200)
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG  (SEQ ID NO: 201)	GGGTG GCCCA TCAAT TCTTC AGGT  (SEQ ID NO: 202)	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTTCGGTTGTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTTAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCTGAAATTTCTTCAGGCGCCAT ATAAGCATTGTGTTCCAACATACGTCTTGCTAT AGAATTCACCAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCCTCTTGTTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAACTCCACAAGTAGGTAAGGCCTTTA ACAACTGCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTCTATATACATCCAAAGATCCC CCATCCATGA (SEQ ID NO: 203)
C73	Glucose transporter	GCAGCA GCCTGTG TATGCCA CC  (SEQ ID	AAGCC GGAA GCGAT CTCAT CGAA	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAAGTTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCCCAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT

		NO: 204)	(SEQ ID NO: 205)	GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCACTTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCGATGGTCATG AGCACGGCACAGCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC (SEQ ID NO: 206)
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT  (SEQ ID NO: 207)	GCTCA GCCCC TTTGA TGGGT AGC  (SEQ ID NO: 208)	CGCCGATGAGTACGACCAGCCTTGGGAGTGGAA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGGCGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAAGC ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCAGAAAGTCA TCCACTACTATAACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC (SEQ ID NO: 209)
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC  (SEQ ID NO: 210)	CATAT CGCGG ATGAG AGTTT CGATG G  (SEQ ID NO: 211)	TGCAGATCACCCGACCAGGTGTCCCTGCTTCGC CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCCGCGAGGCCTACACGCCTCA CCCATGTCCGCCGACCGAGTGGTCGCCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTCGGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG (SEQ ID NO: 212)

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTCNAGACA CGCAGCTGACCAAGGAGTGAGGG AGGGACCAGGTGTGCAAGCTAAT AAATAGAGGAGGGGGAGACTTCC TGGAGCTGTAGCCATTCACTCTTC ATTCTTCTCAGGCATGAAGGCATC TCTTTTCTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATATTA GTTTGCATTTTAGTGACAGGTGTA AGAGAAAGGCCCTTCTTCCCTTA CTGGGACAAATCTAGAAATCTTAC ACAGATGTGCAAATAAAGCTCGCG TGGTGTTT (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGTCT GGAAATAAATACAAATATCTGATTA AGAACTTCTCTGGAAAGACTTGT ACACAACAGTTTTCTGTCTCGAT TCAGCCACTCCTGCCCTGACCAA GCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCCAC GAAGTTGTTTTAAGGTTACAGCTA TGAATAAACATTGTCCAAACAATG AAGATTTAGGGCTGAAGAACGAG CGTATGTCTACAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTGGG AGGTAATCCTAGAAACACAGAAG GGGGTGGGGATAGGAGGGATGG CAGGAAAACAGTAAGAACTGTGT TATTGAGAAGGTTATCACTGTGGA CAACTGGCACAGAATACACTTCAG AGCTGTCGCCCTGAGGGACAATG ACGCCAAGGTCTTTTCTCTAAGT CCTGTTTCTTATAGCCGAGGGTG GCTCCTGGGAGCAGTAACTGCCA ACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTGAGC CATTGATATATTTGAAAATTATGGC ACAAATGGAAGAGAACCACATTTG AAAAGCTTCCAGCCTTTCAACAGA AGATAACTCTTCTTGTTCAGAT TGAGCAGATAATTTCTTTGAAGG TGATAGTTTCCTAAATTGGATAAAA CCGTGGCTGCCATTATATTCACAG AAAATAAAATGAAAACCTCAGTTAA TTGTGGATTTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTATAA ACTAGTTTCACAGGCTACAAGGAA GTATTTAGGACTATGTACAGCCTG ACGGGAAACAGGCAGGGAGCTGA GGAGGGCCAAGATGAGTCTAGGG CCTTGGTGGGCGCATTCCCGGGG GAGGGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCAAGA ACAACGGCATAACAAACAAACACG TCTGTGGCAATCAAGCTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAATTT TAGGGTTAAGGGATAGGAGGAGT AGGGGCAGTAGGTGCAAGGTCAT TAGGGCATTCTCGTGTGAATGA TGGTTTGATATTTTGATATGGTG GGAATATTTACCACGTTGTGTGGT GATTAATATATAAAGTGAGTATAG GGCGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCACCT GCTGTGTACCCAGCACTGCGGGA GGGGCTGTGAGAGACCCAGGGCA GTACAGGACTTGTCTTGCCCTTC AGAGGCTTATAGTCTAGGTGGAAA CAGGAGAACCAGGACACATGAGG AGCCAGGAGAAAACAGTACAGGC CAGGATGTTACAGGAGCTTACAGT GTTTGGGGTCAGACCCACTAAGT GCTTCAGTACCTCTAGGGGCTCAA TGTTCAGGGCCAGAAGAGACAATA ACTCACAACAGCCCATGTAGCAT GCCCTATCCACAGCGTCTACCTCT GCTATCTTAAACATCTGACTCCT CGTTAAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTTTTATTATAGTA CATGAGCTGGACTGATGGGAAAG GGTAGGTGTATGGGCAACCACTG CCCAGATTAGCATCGGATGCCCAT CCCGATGGCCATGAATGTGCCAA ATGTGCCGCCACTCTGCATCATGG TTTTCCCGATGCCGCCCATCAGCT CCCGACCCCGCATTCCGATCCTG AGACAGGAAAAGGTGCCGAAGAG CGCCCCGGCCGCCATGCCCACTG CACAACCCATCACAAGCCCATCT TCACGCGGTAAAAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTTATTCTTGT TATACCTTCCCAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTTCA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGGATT TATACATGAAAAATGGACAAGGCT TTGCATTAGTTTACTCCATCACAG CACAGTCTACATTTAATGATTTACA AGATCTGAGAGAGCAGATTCTTCG AGTTAAAGACACTGATGATGTAAG CTGACTTCCTAATAAATATATTTTA CTTG (SEQ ID NO: 225)
CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCATC AGGGCTGCCAAGGAAGCAAAAAA GGCTAAACAAGCATCTAAAAAGAC AGCAATGGCTGCTGCTAAGGCTC CCACAAAGGCAGCACATAAGCAAA AGATTGTGAAGCCTGTGAAGGTTT CCGCACCCCGAGTTGGTGAAAAA CGCTAAGTTTTAGTGGATCAGATT TTTAAATAACATCTGACTCTAACT (SEQ ID NO: 226)

CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTTATT TGACAATCAGCGATTAGTTCTCAT CCACATTAACAGTCTGTAGATTTTT GAAAGTGGTGACAGGTACGTAGG TAACCAGCGTGTAGAGCTTGTGTTG GTGAATCTTCATCCTCGTTAAGCT T (SEQ ID NO: 227)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGACC TCAAGGGTGATAGTTTTGCCCGTC AGGGTCTTCACAAAGATCTGCATC TCTGCGTCTGCTGGAGCGAACTC GCAAGGCCGCCGCCACCAAACCG CTCGCCACCTCGTTAAGCTT (SEQ ID NO: 228)
CTP25D	No significant match		AAGCTTGCACCATATATATAACTCT TGGGCAGAGGGTCTGGCATACT AAGTAGATACTCAGAAATATCTGT TGGATTGTGTTGATTTAATTATTTT TGTGTTGCTTCTTTTAAAGATGAG CACTTTCTATTAGATATTTTTTTGA TCAAAAAAAGATATTTTTTTGATC ATACAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTCCTGGTTGG (SEQ ID NO: 229)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAGAGG CAGAGACACAGGCAGAGAGAGAA GCAGGCTCCATGCAGGGAGCCTG ACGAGGGACTCGATCCCAAGACT CCAAGATCGTACCCTGGGCCAAA GGCAGGAGCTTAACCGCTGAGCC ACCCAGGTGTCCCAACTGTCAGG GTTTTAAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGTCAT ATTCATAAACATAATACGTTGAGAA GCTT (SEQ ID NO: 230)
CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGTGTA CAGTTTTTGTAAGGTTTTAATTTTA CAATCATTCTGAATAGTTATGGTC AAGTACAAATTATGGTATCTATTAC TTTTTAAATGGTTTTAATTTGTATAT CTTTTGTACATGTAACCTATCTTAGT TATTTGGCTAATTTTAAGTGGTTTT GTAAAGTATTAATGATGCCACCT GTCAGCACAATAAGAGTAAGAACT AATAAATGGATTTGG (SEQ ID NO: 231)



CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAGAGA AACTTCTAAATTGCCAGATATGTT AAAAGACCATTATCCATGTGTGTC TTCAGTGGAGCAGTTAACAGAGTT GGGAGGTGAACTGATGTTTTTGT ATGCCGTCCTAACACAGCCCTATG CCCGATGTA CT CAGAGACTGGAA CAGCACAAGAGAAATAAAGCAACA ATCAGTAATGGG (SEQ ID NO: 232)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAATAG GAATGAGTAATTTGGGCTTTGAAA TCTCTCCAGAAAGACAACTACTT CGATGGGAAAAAGCTTTGACATTT TGTGTTTTATTTGTAGAGGGGGTT ATTGGATACAGAGGAGCCTGGTCT CATACATTTTCATCTTCAGTCTGAA AAGATCTGTAATTCTGTAGACCCT GAAGCGGGGGAAC TTTTCTTTCTG CCATCTCCCTTTGCTTTCATATGAA CACCTCTTCTGTACCAATCATTG GAAAAGAAGTGAGCATATCTCTTG TTTTAAAAGTTTTGCTTGNCTGGTT AGCATTCTTTTGAGCTCAACATA TATGGAACAATAAATGTCATTTAAT GCTGNGNGCTATTTTGAATTCCTC ATCAGGTTTTAGAAGTGGGGTCAA GAACACTTAAAAGCTCATTGGACT TTGAAATTATNCCAGCCGCCNTTG ACCATTATCTGGCCCANCAAAGCA GGTTAAATTATGGCNCCNGCAAAT TTGCTTTTTTTTTTAATAGNNGGAN GNNTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC (SEQ ID NO: 233)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGACTT ACCCCTCCCAGATCCTGAATGTCC TTTTGGAGTTTTTCAGATACGGTG ACAGAAGGTAAGTCAATGTAAAT ATTTTTCCCAGAGTGGCTTATATT TGTATTTTTCTGGTTTGTTATCAGT TTTCATAGATTTTCATAGATCTGTTT TTTTCATTTTTGACTTGGATTCCAC CTGTTGTTTAAAAAAGTAGAATCA GATCATGATTTATGTGGACAGAAA ATTTCTCTTTTAAAAATACTTTTTAT ACAGTCATCATTTTCATAGAGGGGG AAAAAATCTTTATAATACCACCAAT TAAACACTCAATAGCATTTTACTGT ATTTCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGTTTT AACAGATCCCATACTGTAAATAA TCATCGTTCACAGCCTACAGTCGA AGCTT (SEQ ID NO: 234)
CTP31A	No significant match		GGGGCAGATAAAAACACTTAATGT AAAATTTACCCTCTCAGAAAAATTT CCAGTATGCTATACGGTATCACTA ACTATAGTCACTATAGTATACAGTA GATCCCTAGGATTTATTCATGATG TACAGTCGAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTACGAA AAGCATCAAAGCATCTTTATGGTC AGCTTAAATTTGGTACACTAGATT GTACAATTCATGAGGGACTCTGTA ACATGTATAACATTCAGGCTTATC CAACAATAGTGGTGTTCACCCAGT CCAACGTTTCATGAATACGAAGGCC ATCACTCTGCTGAACAGATCTTGG AATTCATAGAGGACCTTATGAATC CTTCAGTGATCTCCCTGACACCCA CCACTTTCAATGAAGTGGTTAAAC AGAGAAAACATGACCAAGTCTGGA TGGTTGATTTCTATTCTCCATGGT GTCATCCATGTCAAGTCCTAATGC CAGAATGGAAAAGAATGGCCCGG ACATTAAGTGGACTGATCAATGTG GGCAGCGTAGACTGCCAACAGTA TCATTCTTTTTGTGCCCAAGAAAAT GTTCCGAGATCCCTGAGATAAGAA TTTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCGTTC TTGCCGCGTCTGTTCAAACCGGCA CGGTCTGATCCCGGAAATACGGC CTCAACATGTGCCGGCCAGTGTTT CCGTCAGTACGCCAAGGATATAG GCTTCATTAAGTTGGATTAAGTGA ACTTCCTTGAATGGGTCATCCAAG ATACCTACCTTAACTGCAGATGTC CAAGATACCTACTTTGATGCCAAC TCATTGTATATAAAATAAAATACT CCAATTATGAGTGTTTTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAATTAT TGAAACAAAATTAACGTAAGTAGA ATCATGTGCAACAGTGTCTCTAAC ATATGGAAGAGGTAAATATGAATT TTATACAATAAGGTATATTATCCAC TGTAACAAATTTCCAATAATTTGGC ATTTATCTTTCACAAAATGTCTCCC AAATTCTAAGCAAAGTATGCAAATT GGAGATTAACTCTAAACAGGCATA ATTATCTTCTTATCCAGTTTTTCTG AAGAGACTGAAGAGTTCAGGTCTG ACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTATT ACTGTCAAAGGCATCAACCAGATT TGGGAATTTGTTAAAGGTTAAAA ATTCATACAAAACCTGCTGTAAATT AAGACAAAGGTAGATTAAATGCA TCATTATCTGTCTCTTAAATAAAGT AATGCTTTCCATAAAAAGCAAAGG TGGGCTTTTGCCTTGATGCTGACC AAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTC AAGGATCAGTTCC GTGGCACCCTCTGACCACAGACT GGGAGCAACACGCATCTGTGGCA TTAAAAATGGAATTGGCAACTTC ATGACATTGGAATGCATATCACAC TTACAGTGTCTAGACTTTCCTATGT GTGCTCAGTTACAAGTAGTGAAGC AAAAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGCCAT AAATGTGAAAAGCAATACTCTGAA ATAAAGATTTTTGTTTTTGCCTTA GCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCCTCT ACATATGCTCCCAAATTACCTTCTA AAAAGGCTGTATTAATTTACTTTCA CCAGTAGTATTATGAGAGTGCCCA TGCCCTTAGCCTTTTAAATTCAC TATGAGCAATCTTTAAATCATGTAC TAAATCTTATAGGCAAAGAATAGG GCCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTCTT CTATGTGATCACTGAGTAAGTTCA GTCACTCCCATCATCTCTAGATTG GAGATTTCCAAATTTATGGCCTTT CCTAACTTTGAAGTCCTTATTTCTA ACTGCCTACTAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTTGCT ATGTTGCCAGGCTGGTCTTGAAC TCTGGGATCAAGCAATCTGCCTGC CTTGGCCTCCTAAAGTGCTGGGAT TACAGGTGTGAGTCACTGTGCCTG GCCTCATATAGTCACTATAACAGC CTACTAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAGAGA AGTAGAAATTGAATGTGGAACATT AACCATTAAAAATCATACTTTTGAA TGTGCTGAGGTCATGAATTGTTTT TACCTTCTTTGTAATTTGTGTTTT CAGATTTTCTGTAGTTAGCATATAT TCTATAATCAGAAAAAGATGCTTC AAGTTTTTTGCAGATTTACAGAAT TTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTGCA AAAACTTGAAGCATCTTTTCTGA TTATAGAATATCTGCTAACTACAGA AAATCTGAAAAACACAAATTACAAA GAAGATAAAAAACAATTCATGACCT CAGCACATTCAAAGTATGATTTTT AATGGTTAATGTTCCACATTCAATT TCTACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGACTG ACACTGCAGTGTGTCCTTGTGTTGT TGATCCCTGATCTAGGCCTCGGCT TTTCAAACCTGCAGTTGATCAAACCT GGGATATGCTTCGGCTGAATCTGC TCTCTGGTGCTTCTCTTTAATCGTT TTCTCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAAGCT T (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGTCCA AATAGCATAACCTAATTGCATTCAA AACCATTTTCAAATCCATCTTTAAA CTAGTCAGAAAACAGGTTATTATTT TTTTAAATCACTTAACACTGAACAG ATAAGACCTCTTAAAGGCAGCTG ACTATATCATGTCACCATCATAGC CAATACAACATTTTTGCCATACTTC CTAAAAACCTTTTCGCATACACTG ATCATGCTACTTATCAGCACTTTTT AACATCCTGACCAAAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTTCGGGGGG AACAGCTACTAGATGAATTTAAGG GTTTTATGCACCTTATAGAAGTTAT AGCAAAAATAGTTTTAGTTGATTTT ATTATAAATAACGTTTTCAAGAACC TGTGCAAACTGTCAATAATTTCTT AAAGCACAATTGATCAGAAAAATC CATGATTGTTTCAGCCTTCACACCC TTCTTCATGTAAGAACACCTTCTT GTACATCTCACAGTTACTTATTAG GTTGAAAGGTATATGGTGAATGGT CATTAGACGTCTCGACAGCCACCT GCTGCTGACCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCCAGTGCAAGCCA GGAACATTGCAGAATGCTAAATTT ATCTGCTAGGTGATGATATTGAAC GATCTAGACAATAATTTACCTTAC TTAAATAACAATGAACAGAATTCCT TTTTTTCCACTCTGAGTGGATATT CTGTCATCTCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match		AAGCTTCGACTGTCGCATCAATGA ATGTTTTAAGTAATAACTTTGCTGG TTATCAGCTTGATGGTGCATTAATT TTATGGCTCATTTCCTTTATTTTGA CCATTGTCGGATTCTTCATTTTATA TTGGACGATCCCCAATCGAACGGT ACCAATTTTTTCAGCTGTGATTGC GGCATGTTTCAACGCGACCGTTTT TGAAATTTTAAACATTTATTTGGC TGGGTCATGAGTAATTTCAACAGC TATGAAATCGTTTATGGTGCTTTTG CAGCAGTTCCTATTTTTCTACTTTG GATCTATCTGTCTTGAATATCATT TTATTGGGTGTAGAAGTGAGTTAT GCACTCACCGCCTTCCATTCTGGT (SEQ ID NO: 250)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTTTAT TTTTGCACTATAAATAGAGTTCCT AGTCCCATTTTGTTACATAATATAT GAGATAACAGAGAACCTAAAATTC ATTTGGTGAAAATCAAGTGTGTAG TATACCTAAATACCAATGAGCTAG TAAGACTTGTAAGGCACTGAAGCT AAGGCTAACAGCAACAGAGTCCTT TATGAAAATAATTTTCAAGAACCAAA CGCATTCTCTGATGGTGCATTCCC CTGGGACAGTCGAAGCTT (SEQ ID NO: 251)
CTP64B	No significant match		CATCGCAGACATTTATTTTAGTTTT GTTAATTTCAAATATTCATTAACCT CTTGATCAGATTTAAGGCAGAGA AAAGATACACGCCCTGGTTAACT GAACCGGGGTTTAGATAGTGTAGT CCACCCTGGGTTCCACCAGGGAG ACCTCACCCGAGATGACAGGTCC GGTTGCTGGTGCACAGTCGAAGC TT (SEQ ID NO: 252)
CTP65A	Pig mRNA for endoplasmic- reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript )	X16951	CCATTTAAAATGTTTTATTTTCCTT TTTAACTAGATTGTGAAGTGCCA CTGAAATAGGCAATGTTGGCAAAA CAATGTCTGTTACAATAAAATACAT TAGACATTTAAATAAATAACCTTAA AAACTACATGGGGGGACATGAAC CCAGTCGATTGAATCTGGAACAAT GTTTTCTGCACAAGCGAGAACAGG CATACCTCTTGTTAAGACTGATGT AAACAGAACCATCGGAACCCTACA GTCGAAGCTT (SEQ ID NO: 253)

CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACTTTATTTGCATA TTAAAAAATTGTGCATTCCAATAA TTAAATCATTTGAACAAAAAATG GCACTCTGATTAAACTGCATTTTAA CAGCCTGCAAGATACCTTGGGCC AGCTTGGTTTTTTACTCTAGATCTC ACTGTCCTCCACCCAGCTTCTTC CTTCACCAACATGCAAGTTCTTTT CCTTCCCTGCCAGCCAGCCAGAC AGGCAGATGGGAAAGGCAGGCGC CTTCGTTGTCAGTAGTTCTCCATT CTTTGATGTGAAAAGGGGCAGCA CAGTCATTTAACTCGATCCAACC GCTTTGCATCTTACAAAGTTAAAC AGCTAAAAGAAGTAAAATAAGAAG GCAATGCTTGTGGAATGTACAGTG CATATTGGCGGCGCACGCCTCATT ACGATTGGGCTACTAAGCTT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACTTTTGTTTAATGGG TCTCAAATTCTGTGACAGATTTTT GGTCAAGTTGTTTCCATTAAAAAG TACTGATTTTAAAACTAATAACTT AAAAGTCCACACACGCACAAAAA AAAAAAAAAAAAACAAATGGTCCAC AAACATTCTCCTTCTCTTCTGAAG GTTTTACGATGCATTGTTATCATT GCCAGTCTTTTACTATTAACTTAA ATGGCCAATTGACACAAACAGTTC TGAGACCGTTCTTCCACCACTGAT TAAGACTGGGGTGGCAGGTATTA GGGATAATATTCATTTAGCCTACT AAGCTT (SEQ ID NO: 255)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATAAAT AGGAGAATGAATCAGAGTCCTCCA ACGCGTCCTCCCTAATGTCCCTTT GAGCTGCCTCCTCTTCCACTCTGC CTCAGCTTGTCATGTCACTTCGC TCCAGAGCAGCCGCAAGAGCATC TTAACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAGTGA TATGACTGAAACCTCATTTAACCTT TTAGAACTACCAGGAGGAGGTTCC CAAGGATCCCAGG (SEQ ID NO: 256)

CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAACTC TTAATGCACGGCACAACCTGCCAG ATGTGCAGGAAAAGAAAGATGGC AAAGTAAATGCCCCATATGAGTGC CATTGGGATGCCAAGAGGGGCAG ACAGCAAGCGGTAAAACCACTATT TTGTCACAGTGAAGGTGGTGAAG CTGGCCTTCCAGATGCCATCAAAA CTGTGTGTTCTTCTGGTTCTGCA ATCACATCTTCAAAATCAATCTTGA CCACGTCGTCGTTGAGAAGCTT (SEQ ID NO: 257)
CTP72B	No significant match		CCATTTTGGCTCTTAAAGAGCATCT TAAGTGAGAGATCATGACAATCTT TGGCCACTCCAGGTTTTCTCATCT ACTACATGATCTGTTCCCAACAAT AAGCCATTGAAATTAAGGTCTCC AGAAGTTTTATCTGGGGTCTGTGA TTGAAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 258)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTCTTTT TATAGACATTACACACAACACATAT ATAGTGACACAAACACAAGATTCA ACACTTGTAAGATTTTTTATTTGCC AGTTTCTTAATTGGATTACTGGCAT CAGGGTGGAACTTTAGAGGAAG AGAGCCAGGTAGCATGCATTTCTA GGGCCTACTAAGCTT (SEQ ID NO: 259)
CTP73B	No significant match		CCCATAAGAAACATCTTTAAACAT TCAGAATACTCAGGATAATCAAGG CTAATATTCCTATAAATTCCTTACG TGTATTATGTACATTCAGAAAAGT GTAAATTAATCAAATATTATACTCA AAACCCCTTATAGTCTGCTAACTT GCATGTAGAAACATCTGAAGTAAC ATGCTGCCTACTAAGCTT (SEQ ID NO: 260)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTGGAT CCTTTCCTATGTTGAAATGGAAGA ATTAATGAGCTTACATTAATTAGTA TTGTAATGTGTAAGGAAGCCCAG CAAAATTTTTTGAAGCTTGATGAT CCCAACGTATTTACCATTGTATGTT AAAGCAAAATAAATCACCATTTTTT TA (SEQ ID NO: 261)



CTP75C	No significant match	AAGCTTCTCAACGGCCTCCACCTC CTTTCTGCCCTCACAGCCTCCTGG CTCTGGCCCAAAAAGTGATTCATT TGTAATTATCATGGTTTTCTGCAT TAAAATGGCCATTTCTGG (SEQ ID NO: 262)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGGCTC CTGTGGAGGCCTGCTGGGACCAG GACTCCTAAAGCGACGANTTTTTN TGGAAGGCTTTGGTCCAAGGCCA TTTTTGCCGGCTATAAACGGGGTC TCCGGAACCAAAGGGAGCACACA GCTCTTCTTAAAATTGAAGGTGTTT ACGCCCAGATGAAACAGAATTCT ATTTGGGCAAGAGATGCGCTTATG TATATAAAGCAAAAGAACAACACA GTCACTCCTGGCGGCAAACCAAA CAAACCCAGNAGTCATCTGGGGA AAAGTAACTCTGGGCCCATGGAAA CAAGTGGCATGNGTTCCGTGCCA AATTCCGAAGCAATNTTCCTGCTA ATGCCATTGGACACAGAATCCGAG TGATGCTGTACCCCTCANAGGATT TAAACTAACGAANAANCAATAAA TAAATGTGGATTTGCGNTCTTNGG (SEQ ID NO: 263)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCAAAA TTGTACAAAATGGCCATAAGCGGC TATAAAAAATTTTCGTTTTCGGAACA CGTGGAAATTCAGAAAGAACAACA AAGCAGGTTATCATTTACAGTGT AATGGAAAAGCTCTCTCTGAGGCA GGAATCACAACCTCTCCTTCTTCTT CCCCAGTCTCTCGTGGTCTCCTTC CCGGAGCGCTCGAATGAAACTGG TAAACCCCGATTCCGTCCGATCGC (SEQ ID NO: 264)

CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGACACA GGAAATTCTTTTGTTAATGTTACCT GGCTTTTTGGTGGAGTTGGCTTTG CTGCAGCAATATTCAGATTGAAAA AAATGGGTTTGGGTTCACTGAGTT TAAAGGGATGATGATAAAAAGGAG GTTCTTCTTCCTCTTCATCCCGAA ACATGAGGCTTATTCATATTACAT CATCATCTTCTTTACTCTGTGCGAT CTGTTTGCATTTCTCAAGTTAGTTC TTCTATAGTNGCTCCTCCTGATTTT TTAGCAACTTTCTCTTCTATTGTGG GTGGAGGTGCACGCTTTTAGGTTT GGCGGGTAAAAGCTT (SEQ ID NO: 265)
CTP79B	No significant match		CATATATATTCTTTTTATTTCTTGT TATACCTTCCCAAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTCAGA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 266)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATATT CTTTAAAGGAACCTTAACAAAACCT TACACTTAATAATGTAAATCTCACC ATGTTCTAGTCAAAAATTTACTAC ACAGACTCAGTAGCGGTAAAAGCT T (SEQ ID NO: 267)
CTP81A	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAAATGGAAGACA GGCCATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)

CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAGGT CATGATTCTGAGATGATTGGAGAC CTTCAAGCTCGAATTACATCCTTA CAAGAGGAGGTGAAGCATCTCAA ACATAATCTTGAAAGAGTGGAGGG AGAAAGGAAAGAAGCTCAGGACTT GCTTAATCACTCGGAAAAGGAAAA GAATAATTTAGAGATAGATTTAAAC TATAAGCTTAAATCATTACAACAAC GGCTAGAACAAGAGGTGAATGAA CATAAAGTAACCAAGCTCGTTTA ACTGACAAACATCAATCTATTGAA GAAGCAAAGTCTGTTGCAATGTGT G (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGAAG CAGAAGGAGAACAAGCCAGGAAA ACCCCGAAAACGCAAGAAGCTTG ACAGTGAGGAGGAATTTGGCTCT GAGCGAGATGAGTACCGGGAGAA GTCAGAGAGTGGAGGCAGCGAAT ATGGAACTGGACCAGGTCGGAAA CGGAGGCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAAAAT TATGAGCAGAGAAAACCAAGGG CTCAGAAGAGACCAGGGATCTGG AAGAAAAATTGAAAAGGAACTTAG AAGAAAACAAGATCTCAAAGACAG AATTAGATTGGTTCCTTGAAGACT TGGAAAAGGAAATCAAGAAATGGC AACAGGAG (SEQ ID NO: 271)
CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGATTCA CCAAACAAGCTCTACACGCTGGTT ACCTACGTACCTGTCAACCACTCTC AAAAATCTACAGACTGTTAATGTG GATGAGAACTAATCGCTGATTGTC AAATAAAGGTATAAACTGCTCCA TG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCTGT GGGCTGGGGTCTCAAACGTGTGT GCCCCACTACTCAACTCTGCCATTG TAATGTGAAAGTAGTCACAGACAA AATATAAAGAAATGAGTGTGACTG TGTTCCAATAAACTTTATTTACAA AAGCATTCACTGGGCTGGATTGG CTTTTGGGCCATAATTAATCCCC TCTGGTAAAATAATCACTATTTTAG CTGGATCATGAGTACGTGGAAGCT T (SEQ ID NO: 273)

CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATATTT ATTAGATAAATATTAGAGGTTGTCA CATCATCTAACTACATACAGCTTT GCAAGACTAGAAATCACAATTAGT TTTTTGACCAGTTTAAAGTATGAAA TGATTGCATTGTACATACGATGTA CAAAGACGATGATGGTTTCTGTGG GAGTTACTTCAGGCTGCACTGGTG GGTGTGTTTATGTGTGTACGTGGA AGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGACCT CCCATGTTCTAATTCTGATTGTTTA ATCCAAGTGGGAGGGTAAACGGG AGACTCTTTGGCCTGTCAGTGACA AAATGGTTTGTAAAAAGAAAAAT AAATACGATATACAAGTAAGTATAA CTAGCACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTTGAAGAGCCTTGTTTTG TCATATTACCAGAGTTGGTTTTCT GGTTCCTTCTCATTGGGTAGGCT CTGTCAGAGAGAAGGTCTAGGGC TGAAGGCTGTTGTTTCAGATTCTT TGTCCCAAGTGGTGTCCCTTGAT GTAGCACTCAAGCTT (SEQ ID NO: 276)
CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGATGT ACAACTTAAAAATGTGAAGTTTGTA GCTTTAACTTTTTGTAATAAAACT AATAACACTGGCTTAAGTGCTGAC TTGAAATGCTATTTTATAAAGTTTG GATGTAAATAATCAATCGAGGTCA GCAGTTTGTATATGTAGGAGACAT AGCTTCCTCCCTGCACCCCCCATT TTTTTAAATTTGAGGTGCTTCCTG TGTGTTTTATGTTAGAATTGTTCT CCCTCCTTCCTACACGTGGTCACC TTTGTTTTAAATAAACTGTCCTTTG G (SEQ ID NO: 277)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTGTGC TTTTCTGTGGGACCATTCATTTC AGGAGCAAAGAGCACCATGATTTC CAATCTTGTGTGTGTTTACTAACC CTTCCCTGAGGTTTGTGTATGTTG GATATTGTGGTGTTTAGATCACT GAGTGTACAGAAGAGAGAAATTCA AACAAAATATTGCTGTTCTTCAGTT TTGTTTGTGGAATTTGAAATTACTC AAATTTAAATAAATTACTGGACTG TGG (SEQ ID NO: 278)

CTP99A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTGTGTTACATTAAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 279)
CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCATA GGAATAATTGTGGCAGACACAATC CAGTGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAGAAAGGAAGACA GGCAAACAAGTGTGTTTACAGGAGC AACAGACTTCAAGGTCACCCCCAC AAGACACCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTCGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGTCAT CTATGCCGAAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGTTTG ATTTTAAGTTTTATATAGTTCTTA GTTTTGAAGAAATCCTTCAAGAAC AGTTTCTCTAAAGAGCATGTTTTAA TTAAATGCTAATTAATTACCTTTCT TAGTTTTCCAATTTAGTAGGCCAC TTTCAATGTCTATTAAAGTGAAATA AACCTTCTGAACTTAAACATTTTAA AATCGATTAAAAATTGTGTCAAAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTTTTCAAACGGAT TTGTAAAACTGTATTTCTTACACT GTGCACAAACCTTTTATACTAAATA AATATCAAACCTTCTTACAGAAA GATGTTTCTAGTATTTTCTTAGGT CACTTCCATATGTAGTATGTACAG TGAGACCACTTTTTAAAAAGCAAT GACTTAGGCAAACCAACCCTAATG GTTTGTTAGACCATTTCCCTGTTTT TAATTAATAAATCATAGGGTTGTGC TTCTGTATAAAGTTTGTACATTTC CAATGTAAATACTGACATT (SEQ ID NO: 282)

CTP109P	No significant match	<p>ATGCAACCACACGGAATTTATTGA  ACATTTTCACAAGTGATTCATTAA  AGGAAGGCTTTTTTCGTGCCTATAT  TGGTTACCATCACTTTTGCCCCTA  TCACAATCTCATGGTGTAGTCCTT  GCATGTAGCAGGAACCAACAAT  GTCTGCTAAATTGACAGATGGAGC  CCCAGACGACCTAAAACCTTGCACT  TTAGAAGCACTTACTTCATCCTGA  GCTATTATGAATAAGGAACTCAAG  TGACTGTTAAAAGCATTCTACTGA  TGAGTTGGTAATGTTCTAAAGCAA  CATATCTCAAAGGAAAGGATATTG  AGTTTGTCTCCACCATAAAATCCT  ATTTTTAAACAAAGGTACTACTTAA  AAATGGTCTTCCAAAGGCCTCAGC  AGAGGTTCTAAAGAGATGTGACAA  TATGCCGAAGCTT (SEQ ID NO:  283)</p>
CTP110A	No significant match	<p>AACATATAAAAACATTTATTCATA  GGAATAATTGTGGCAGACACAATC  CAGTGAAAGCAGCTCAATCCTGCT  CAGTTAGGCTAGTTGAAGAACCAT  ACTTTAAAAAAGAAAGGAAGACA  GGCAAACAAGTGTTTTACAGGAGC  AACAGACTTCAAGGTCACCCCCAC  AAGACACCCTGCACAGCAGGGAC  GGGGACAGGGAGGATGACCTCTT  AGGGCCTGTGCCTTCGCAGAGGT  GCTCGGCGGATGGGTGTGGTCTT  CTTGGGTGTCTCCTCTTCTGTCAT  CTATGCCGAAGCTT (SEQ ID NO:  284)</p>
CTP111A	No significant match	<p>AAGCTTCGGCATAAACGATCCATT  CTCCTCGGCCTCCCAAAGTGCTAA  GGTTCCAGGCGTGAACCACCATG  CCCAGCCTGTTCTTTTTTTATCTC  TAGGTGGTGCTCTCAGCTGTAGT  AGAAATAGCATTGTATTGGATCT  ATTTTTTTAAATAGGGACTAAATAC  AGACCATTTTGTAGAGTGAAATG  CCAAACAAGAACGAGATTTTTCTC  TTGGCT (SEQ ID NO: 285)</p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTC AAGTTT AATAGAAACA ACAAAAGATCAAAAGTGATGCCTT GCTACTACTGTACATACAGTTGG CCTGCCCCATAGCACACCTCAGA CCATCCTCTCCAGAGGAAGAAAG GCTGGCCTCCCCAACCCCTGCAG GAAAGGGCGGTCTTGTCCCATAC CACATACCACATCTGCAGAGTCTA AAGTCTTGTTATAAGCATGACAAT AGTACAAAAAAGATTCTGTTTTCA TGGATCCCCACTACAGCCCGGA CCTAAAATGGCGAGGCGCTCACTT CTGCTTAGAGAAATATTCTTTGCT CTTCTGGACATCAGGCTTGATGGT ATCACTGCCAGGCTTCCAGCCAG CTGGGCACACTTCCCCATGCTTGT CAGTAACTGGAAGGCCTGAACC AGTCGCAGTGTCTCATCCACAGAG CGACCAACAGGAAGGTCGTTTACA GTGATATGCCGAAGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTATTTA AAAATCTGATCCACTAAACTTAG CGTTTTCCACCAACTCGGGGTGC GGAAACCTTCACAGGCTTCACAAT CTTTTGCTTAGGTGCTGCCTTTGT GGGAGCCTTAGCAGCAGCCATTG CTGTCTTTTAGATGCTTGCTTAG CCTTTTTGCTTCCTTGGCAGCCC TGATGGCCTGTTCTCGTTGAGCCT TCCTAACTTCAGGTTTCTGATTCTT CTTAGCCATTATATCAGCAAGAGA TGCCCCAGTGATGGCCCTCTGGA ATTTGACTGCACGGCGGGTCTTT TCTTCTGAATTTCTTCCGACTGTC CCTTTTTGTGCTTTCTTCTGTAGAG GACAGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)
CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGACTA AGGGAGAGCCAAAGTTGGCAATC CCATTAATCTTACAACCTCCTAAAT TATGGCAATCACAATGCCTGCCTG AATGAATATAGCAAGTCCTAAAGG ATGTCTTCTGTGAGGGCAGATGGA AGTTTACTTCAACTCAACTCCATCT ACTATTTAAGGGAAGGATAAGTCA AAGTAAGAGTTAATTATTTCAACAT GGTTTGTTCCATTTCATGATTTAACC ACACTATGGACCCCAGAAGCAGTT AGGTAAAAGGGATTTTCTAGAAGC TTAATTATGCCGAAGCTT (SEQ ID NO: 288)

CTP116A	No significant match		AAAAGAGCATACTTATCAGTTGAA TGGGGATAGAGGTTTTAGATATTT TCCAAAATATTTATAAAACACTTCA TTGTTGAGAAATCACTTACAGAAT GGTGGCTATCAAACAATAATTAT AAATTTTTAAAGCACAAGTCACAT GTTTTGTAACCTCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTGAAA ACATCAGATATGTTTTGGAAAAGT CTTAATTTGAGAACAAGTGAAGGA AGTTAATCCAGAATCTATATGTAGT TAGCTATTAATGATGATGCTTTATT GACAGTATATTGCTAATATATTTCT TCATGAAATCTGAAGTTAAATAGTT TCGTTGTGGAATAGTGTCACTGTA ACATTTCCCTTACGAAGTTCAATAA ACCAGCTTTGCCATAAAAAAAAAA GCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTAAAGCTGATGT CTTATGACTTTTTATGAGTCGAAAT TGTTTTGATTTACAGCAAGTCAAATC TTGTAAAGGCCCGCGTATTTTTTTT AAGATTATATGAAGTCTGTGCAAA AGCTTTAAAAAGAAATGCCTCTGC CTTGCCGTGCAATACATGCAATGTA CGTTAACTTCGTCTCTGTCCTCAG ACACTGTCCGTATTTACTTCCTTGT TTTCCTTTTCTTAAT (SEQ ID NO: 290)
CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAATAGTGTTTTAT TAACACCACACTGTTATAATACAC TTAAACGTACAATAAGGTAGCCT TTAAATTTGAGGTGGTCTTAAGAA TAACAAATGAACAGAATCCAAATT TTTGAAATAGGTGAAGTCTGTAG TTATAGGTATACATTTAGGAAAATT GTATAGCTTTTACAAGACCAGCAA TGAAACTTTATTTGTACATTTTTTT AATAATTGAAAATATAACAATAAT TAAAAAATAAAAGAAAATACAGCAT AATAAAAAACATACATTTCTCAATT AAATGTACTGGATACATATAAATTT AAAGGGAAGAAGCAAAAAAGGAA AATGGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAAAA AGCTT (SEQ ID NO: 291)



CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCN AAATATCCTCGAAAGAGCGCCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAAC ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTTT TCACCAT (SEQ ID NO: 292)
CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTTGGGACTGCTT TTGATTAATGCAGTTATCCAATTTA AGTGTTTTTACTTTAACTCAAAGTA AAAAGAAATTCTCACATGGTAACT ACTCTATTTAAATGGTCCTGGAAA CATTAAACAGCTTTCTGCTGCTTG CTTAATGGTAATACCTTTGATTTCT TGATTCTAGGACATAGCTGATTTA TTAGGTAAAGTACTCTGTCAATTTT ACCTTCACCCAAGACTGTCATGTT TAAATACTTTAGCTGTGGGAGAA ATCCTTGTCTGTTTTTATTGTGAGA GGAATGGTCATCCTCAAAGTCTGT TTCTACTACATAATGTGGACTAATT ATTTTTTCTATCACAGTATTAACAA ATGGATTTATTGTAAATACAAAGAA GATATTAATATACTATTCTTATGTC (SEQ ID NO: 293)

CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGAACT TCGTAAGGGAAATGTTACAGTGAC ACTATTCCACAACGAAATTATTTAA CTTCAGATTTTCATGAAGAAATATAT TAGCAATATACTGTCAATAAAGCA TCATCATTAATAGCTAACTACATAT AGATTCTGGATTAACCTTCCTTCAG TTGTTCTCAAATTAAGACTTTTCCA AAACATATCTGATGTTTTCAATTAA ATGTCACAGCTAAAAATAATTAC ACAGGAGTTACAAAACATGTGACT TGTGCTTTAAAAATTTATAATTATT TGTTTGATAGCCACCATTCTGTAA GTGATTTCTCAACAATGAAGTGTT TTATAAATATTTTGGAAAATATCTA AAACCTCTATCCCCATTCAACTGA TAAGTATGCTCTTTTAAAAAAAAAA AGCTT (SEQ ID NO: 294)
CTP126A	No significant match		AAAGAAAGTAATTATGGAAGTAGA TTTTTAACATTGTAAATACTAAAT GATCCTTCAGTTGTAAGTTGATAT ATATTTGTAACCTTTGTGAAATTGT ATCCTTATGAAAATACCACTTTTGT GGAAGAGAGAATCCAACATGTAA TATTTAATTAACAATCCATGTTT ACCCTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAGCT CTGGAGCAACTTTTATCATGAGTC AAATATATTAAACACATTGATGTCT TCTTGGTATATCTGAAAACAAGAG GTAGAAGTCCTGTTGAGAGTCTTT AAAAATAACTATTTTACAAATGTA AAAAAAAAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E-cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCG AAATATCCTCGAAAGAGCGCCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAAC ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTTT TCACCAT (SEQ ID NO: 296)

CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACATAG CCAGAGAGGAGGCAAAAGAAATG AAAACAAATAGTCTTCAAATGAG GAAAAAGAGGAAAACAAGTGAGG ACACTGGTTTTACCTCCAGGAAAC ATGAAAAATAATCCAAATCCATCAA CCTTCTTATTAATGTCATTTCTTCC TGAGGAAGGAAGATTTGATGTTGT GAAATAACATTTCGTTACTGTTGTG (SEQ ID NO: 297)
CTP133B	No significant match		CCAAAAAGAGCCATGCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACANTAAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 298)
CTP134A	No significant match		CCAAAAAGAGCCATGCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACATTAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 299)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAAATA ACAATTCAATTGCATGTTAAGTAAA CCAGTTGTAGCAATATAAAAATAC AGAATTTTGAGAAAATCTGGCAA TTAAACCTGTATCTAAATGCAGCA TATTCTGTGATACTACGGAATGAA GCTT (SEQ ID NO: 300)
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAAGTG CATTAGCAGGGCAGAGAGAGAGG CAGCAGCAGACTCCCTGCTGAGC TGGGAGCCAAGTTGGGACTCGAT GCCGGGACCCAGGATCATTACC CGAAGCTT (SEQ ID NO: 301)

CTP144B	No significant match		GGGTAAATCCGTCCAGTTTACTGT AAATATGCCTTTGACAACTGGTA ACTCATGTCCCATCCCAGTCCCGA GTACTGGACCAGGGAACTCCAG CCACAGTTGAGGGAAGGCCACCT GTTGGCTCTGGGGCAGCAGGTCA TCCAGTGGGCTTCAGGAGTCACC AGGCCTCTGACCAGTTCCTCCCCA CCAAGCAGTTTCAGAGTTGTCCGC CAAGTCTATTTACACCTCTCGTG TATGCCGAAGCTT (SEQ ID NO: 302)
CTP145B	No significant match		GGA CTGATAATAATAGGATTTTATT TCTAAAATTTATCTTAGAGCTTTCA AAGAGTATAACACACAGATCTTTA CCACCACACCCCCCTTGCCTATAC AGGAAACAACCAAGTTGTGAGAAC ATTTATCATGCACAGACACATCAG GGCTTGCAGGTGCTACACAGGAA TCACAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine-threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAAAA CATTTATTCACTAGGAATAATTGTG GCAGACACAATCCAGTGAAAGCA GCTCAATCCTGCTCAGTTAGGCTA GTTGAAGAACCATACTTTAAAAAA AGAAAGGAAGACAGGCAAACAAG TGTTTTACAGGAGCAACAGACTTC AAGGTCACCCCCACAAGACACCC TGCACAGCAGGGACGGGGACAGG GAGGATGACCTCTTAGGGCCTGT GCCTTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGTGTC TCCTCTTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTACATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 306)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAGATA CATACAAGAATAGCCAGACTACAT CAACAAAGTGTCATATCATGCAG CGGCTTCAAATCCGAAGTGGTGG TTTGATGTGAAGTGGTAGTATAGC TGTCGGAGGAAGCACACGATGAG GAATGTAGAGCCAATAATTACGTG TAATCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATACCCC ATCGGAGATTGTAAAAGATGTCTC ATAGTATGCCGAAGCTT (SEQ ID NO: 307)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 308)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCTAAT AACTAAAATACTCTAACTTGAATA ATCGACTCCGACGTCTTTATTTTTC CAAGTTGCCTTTTCTTTAAACACC TTTTTCTGATTTAATACGGAATAAC GGTCTTCTTTTCCACTCGATAACT ATGGTGTCTCTTGGGTTACTGCT TAAGAAAAGTTGTTTGGGCCATT TCG (SEQ ID NO: 309)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTTGAAGATACAA GTTAGAGTTCAATCAGTACCAAAG GTAAGGAAAAATTA ACTCTATGTA CACAGTCGAGTTTTATCCTGCTTA AAATTGTCAAGTAGAGAAAATTCT GAAAATATTTATGAAAAAGCTATTC TCATGCTGGCAGCAATGGTTAAAA TAAAGATATTTCTTTATTAAAAA GAAAAAGCCTAAAAACA ACTTTA AATAATCAAGTTGCTGTGAAGTGA AAGGGTTTGAAAGTGATGAACTG AAGTTAAAAGTTCTCTATATGTGTG TTTTACTTTAAGCAAATTAGACATA GTGAATAAAATTTGAATTTTCAGAC AAATTATTTGCTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACACAGA GAGAGAGAGGCAGAGACACAGGC AGAGGGAGAAGCAGGCTCCACGC AGGGAGCCCAATGTGGGACTCGA TCTGGGA ACTCCGGGATCAAGCC CTGAGCTGAAGGTAGACACTCAAC CGCTGAGCCACCCAGGTGCCCTG ATTTGCTTTTTAAAGAAGTCTCCCC CTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATACGGTGTGAGG TTACAGTCCAGTTTTGTGTGCTTTA CTACACGGTTTGGTTACAGGACTT CTGTGCATTGTAAACATAAACAG CATGGAAAAGGTTAAATACCTGTG TGCAGATTGTAAGATCTGGTCCGG ACTTGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTTGTA TCATAGTCATGCGGTCTTATGTAT GATAAACAGTTGAATAATTTGTCCT CAGACTCTTTACTATGCTTTTTTAA AATTAAGAAAAATGTAAATATAGTA AAAATCTTCCTATGCAATTAACCTG G (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTTTT CTGTGAACTGAAGTTGGTCAAGGA TTGTAGGCAGCAGAAGGCTCACA AAACGGTCAGTTGAGGAACAGTTA GCAGTATCTGCAACATCCTCAAAT ATTTCTTGAACAACTCTAAGGCT AGAAGAGAACAGTTTTCTGATCTG TCCAGAGGTTGGTTTGACCAACGC AGTAGAGCCACAGTAGGTTCTAAA CATTTAGAACGGCTTCCCAGAATG GTGTTGCCAGATGGAGACTGTTCA AATATCATCTGAGTGAGCACGTGG CGCAGCTGAGTCACTGAACAGAA GGCAAGAAGTAATTCTAAACCTT TGAAGAAGAATCAGGATCCTTTCC ATTGAGAAGACCTAATACTTGACT AAGACATGAAGAAAAGTGCTCATA CCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGACTG TTGGAGGTATGGACGCACACAGG AGGGCCAGGCCAAGGCACGAGTT TTTCAGTGAAGGGGGTAAAGCATC ACAATTTAAATGTTTGCAATTA CTGGTTTGTTAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGATTCA TGCCATAAGTTTATTTACAAACATG TTGTGTATGTTGAATTCAAGAGATT GATCCATTTTTTCAGAGACTGCACC TCTTAAATGTTCTTTTCACATCT GTTTAGTGGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAAATA GTTTATTCACCTCTGTAGTGGAAA AACAAGGAGAAATAAAATCTGCTT ACAATGGCCAAAATTTATGGAGAA GCCCTAAAGTTGCTTTCCCCAAAT CACAAATCTGATTCAAGAGAAGGA AAAAAATGATGAAAAACATCTCAT CACACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAGAAG CTT (SEQ ID NO: 315)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATTTAAT GTTCCATAATTAACTGTACACGA CCTAGTCTTGGGACATAGAAGCCA GTGAGGTGAGTTTGGAGCAGTCC CAGGAGCCAGGAGTCGAGTTTTTC ATTGGCCTTTTTTTCTTTTTCTTT TTGTCATTCTGTTTCATCTAAGATTA TTTGGATACTTGGCACAATCTGGC TCTGCTGCTAAGCTT (SEQ ID NO: 316)
CTP202C	No significant match		AGAAAAAAAAATTGATAATTAGGTG CAGATAGAAAATATGAATTAGAAG AGGTTAATTCAAGTGATCAGCCTG AAAGTTCAGCTTCATTAGCTTTGT GGTAAATCCACCACTTCAGATAGT AACTAAAGTAAATTTTAAATTTTCA AAGAATAAAGTAATCCCTGAAAAG AATTCATTTTTTTCCAGAAGAAG CTTATAATTAATAAAAAAAAAAGCTT (SEQ ID NO: 317)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAGGAA GTAAATACGGACAGTGTCTGAGAA CAGAGACGAAGTTAACGTACATTG CATGTATTGCAGGCAAGGCAGAG GCATTTCTTTTTAAAGCTTTTGCAC AGACTTCATATAATCTTAAAAAAA TACGCGGGCCTTTACAAGATTTGA CTTGCTGAAATCAAAACAATTTCC ACTCATAAAAAGTCATAAGACATC AGCTT (SEQ ID NO: 318)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAAGAT AGGCATCTCTACAGATGGGGGT GGGGGCTGTTGTTACTGGTGAAG ATAGGCATCTAGCCAGAGCTGCC CAGACTCCTTCAGTGAGTAGATAA TGTCGGCGAAGGCTGAGAGCAGG GGCTTGGAAGTGGTACTCTATGCCA TGCTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTAATT GTGTCGAGGCATCGTAAGCTT (SEQ ID NO: 319)
CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATTTTTA GATCAACCAAACATATTTAATATAA AAACCTTTTAAATATACAACTGTAA TCACAATTGCATCCACGTAGCAGC GAGGGAATGGGGTGTTGCAGGAA GCTT (SEQ ID NO: 320)



CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAGGA GCGTCCCCAAGAAAAAGAGGAAA TTCTCTTCTAAGGAGGAGCCACTT AGCAGTGGACCTGAAGAGGCTGC TGGCAACAAGAGCGGCAGCTCCA AGAAAAAGAAAAAGCTCCAGAAGC TATCCCAGGAAGATTAGAATGGAC ATTTTACCAGGTGGGGCAAACCCA CATGATTCCAAACCCACCCTTATA TCCAATAAAAAACAAATTCACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACCTTATTT GAGAAAAACAAAAGGTAAATGTAT CAAAAGAGCATACAGGTAGTGTG CAGGGACGGTCAGTGATGGCTAC TGAGGTGAGGATGTGGGCTAAGC AGGGCTAAGGCCTTTACTTGGCTC CAGACTGCTCCGACTTTCAGCTT CTGGGCCCCCAATCTGGGCACGT GCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTGGG GTTGTCATGACCTTGGCTATGACG CCCAGCATTTTCGAGGTGGCTCCC TCTATTCTTTACTTTGGGCATCATA GAAAACGTGTCTCTGGGGGATTAA TCTTAGAGAAAAATAAAGCCTTCT GCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCAACCAAGCTTTCACAA AGCACTGTTCTTCTAATAATTCCTG CCACAATATATTAATTTCTTGTAGC CTACTCCAACGTTCTCTGTCCAA CGGCACACTGCTGTCCAGCGTTC ACCAAGCTT (SEQ ID NO: 324)
CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACACCAA CATATACAAACACCGAGTGACTAC AGTACATGCCGAGGTAAGAAAAGT ACATTCGGGGAGACTATCACTGAC ACTCAAGCCATTTTTATTTCCAATA TGTTTTGCTTTCACCTTCCAGT GCCAAAAAAAAAAAAACCTAGTCA CAAATTGGAGTAAATAAGAATCGG TGCCAGTTGACCT (SEQ ID NO: 325)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAAGCC TTCAAGGAAGAGGGTAATGAGGG GGAAGAAGTGCTGTGCCAAAGTG ACAGCATTCAGTGAGGAATAAAGA AAGGAGCTCAGTGGTAGCAGGAT GTTGAGCTTCCAAGAAAATCTGGT GGTGGTGAGAAAGTGGCTGCTGT GCACTGCAAGGAAACAGAGCGAT TAAAGAAAGAGATGTGACAGGGTA GGTGGAAAGAGATAGCCAGAAGTT AGAAATGGGTTACACTGAAGAAGT AAATTATTTGATTAAACAATAAGTA AATATACTGGGGATAACAAAAGCC TGATTTCTCCACTGTCTCAGAAGG GATTTGCAAGTATGG (SEQ ID NO: 326)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGTTA AATGGAACCTGGAAACCTCTTCCT GGGATTATTCCTTAAGCAAGGCAG TGTCAAAGGCAACCCTCCCAGCAA GACTTCAGAAAACAGCTGGCAGAA CTACAGGATCTGGTGTCTGGTGTG TAAAATACTCTCCTCCCTGTTCAA TGATTCAGAACATGTGCAAAGTGT GCTAGCTTTTCATCATATACATAA CAGCATTATGTATCAAGTTACCCT GTTCAAACAAGGAGCAGGCTTCCT CTTTTTGACTTAAATGACATGAAGT GAGAAAAAAATGAGAATAACCN CNNGGGAATTATAGAGGGTTATAA TTCTATCCCNACTATTTCAATAAAA GCCATCACGGG (SEQ ID NO: 327)
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAAGG TAAAACTGTTGCCGAAGTTGCTGC GTTACAAGAGCGTATCCCAGAAAC CATAAGGCTACAACGCCGAAATTG GGAGCTACATCAGTTTGAATCGAT TCAAGAAGGTCATCGCTCAGGCC GTCCCAATACACTGACCTCAAAC ATCAGGCTCAAATCTTAGAGTGGG TCAACACAAGCCCACTCAATGCAG AACAAATCCGAGTCAAACGTCATG AAAAACACGGTGTGTCCGTGTCTG TTGAAACTCTTCGCAAGTTTTTGC GAGATTCAGGCATGGTCTTCAAAC GCACCCGCCACAGCTTG (SEQ ID NO: 328)

Please substitute **Table 8** with **Table 8** amended as follows:

Table 8			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTTATTCNAG ACACGCAGCTGACCAAGGAG TGAGGGAGGGACCAGGTGTG CAAGCTAATAAATAGAGGAGG GGGAGACTTCCTGGAGCTGT AGCCATTTCAGTCTTCATTCTT CTCAGGCATGAAGGCATCTCT TTTCTGACCAAAGCTT (SEQ ID NO: 329)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATA TTAGTTTGCATTTTAGTGACA GGTGTAAAGAGAAAGGCCCT TCTTCCCTTACTGGGACAAAT CTAGAAATCTTACACAGATGT GCAAATAAAGCTCGCGTGGT GTTC (SEQ ID NO: 330)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 331)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACT AAGAACTGTGTTATTGAGAAG GTTATCACTGTGGACAACTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 332)

CTP8A	No significant match	AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTC TTCTTGTTTTGCAGATTGAGC AGATAATTTCTTTTGAAGGTG ATAGTTTCCTAAATTGGATAAA ACCGTGGCTGCCATTATATTC ACAGAAAATAAAATGAAAAC TCAGTTAATTGTGGATTG (SEQ ID NO: 333)
CTP17G	No significant match	CATATATATTCTTTTTTATTCT TGTTATACCTTCCCAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTC AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 334)
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG G (SEQ ID NO: 335)
CTP25D	No significant match	AAGCTTGCACCATATATATAA CTCTTGGGCAGAGGGTCTGG CATACATAAGTAGATACTCAG AAATATCTGTTGGATTGTGT GATTTAATTATTTTGTGTTGC TTCTTTTAAAGATGAGCACTT CTATTAGATATTTTTTATGATCA AAAAAAGATATTTTTTATGATC ATACAGATTTAAGCAGGATTT TTATTAATTCGTTTCTCTTCCT GGTTGG (SEQ ID NO: 336)
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGA AAAATTTCCAGTATGCTATAC GGTATCACTAACTATAGTCAC TATAGTATACAGTAGATCCCT AGGATTTATTCATGATGTACA GTCGAAGCTT (SEQ ID NO: 337)

CTP36A	No significant match	CAAGTTTTACCATTTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACA AATTTCCAATAATTTGGCATT ATCTTTCACAAAATGTCTCCC AAATTCTAAGCAAAGTATGCA AATTGGAGATTAACCTAAAC AGGCATAATTATCTTCTTATCC AGTTTTTCTGAAGAGACTGAA GAGTTCAGGTCTGACCAAAG CTT (SEQ ID NO: 338)
CTP47G	No significant match	AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTA CCTTCTAAAAAGGCTGTATTA ATTTACTTTTACCAGTAGTATT ATGAGAGTGCCCATGTCCCTT AGCCTTTTAAATTCACATGA GCAATCTTTAAATCATGTACTA AATCTTATAGGCAAAGAATAG GGCCTTGCCCCTGCCCTGT T (SEQ ID NO: 339)
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCT CTTCTATGTGATCACTGAGTA AGTTCAGTCACTCCCATCATC TCTAGATTGGAGATTTCCAAA TTTATGGCCTTTCCTAACTTTG AAGTCCTTATTTCTAACTGCC TACTAAGCTT (SEQ ID NO: 340)
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAATAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTACCTTCTTT GTAATTTGTGTTTTTCAGATTT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCA AGTTTTTGCAGATTTACAG AATTTTGT (SEQ ID NO: 341)

CTP53A	No significant match	AAACAAAATTCTGTGAAATCT GCAAAAAACTTGAAGCATCTT TTTCTGATTATAGAATATCTGC TAACTACAGAAAATCTGAAAA ACACAAATTACAAAGAAGATA AAAACAATTCATGACCTCAGC ACATTCAAAAGTATGATTTTTA ATGGTTAATGTTCCACATTCA ATTTCTACTTCTCTATTATTGC CTACTAAGCTT (SEQ ID NO: 342)
CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAG GCCTCGGCTTTTCAAACCTGCA GTTGATCAAACCTGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTAATCGTTTTT TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTC CACCTCTGGAATTAACGTTGA GAAGCTT (SEQ ID NO: 343)
CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTAC CAATTTTTTCAGCTGTGATTG CGGCATGTTTCAACGCGACC GTTTTTGAAATTTTAAAACATT TATTTGGCTGGGTCATGAGTA ATTTCAACAGCTATGAAATCG TTTATGGTGCTTTTGCAGCAG TTCCTATTTTCTACTTTGGAT CTATCTGTCTTGGAATATCATT TTATTGGGTGTAGAAGTGAGT TATGCACTCACCGCCTTCCAT TCTGGT (SEQ ID NO: 344)

CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTA CATAATATATGAGATAACAGA GAACCTAAAATTCATTTGGTG AAAATCAAGTGTGTAGTATAC CTAAATACCAATGAGCTAGTA AGACTTGTAAGGCACTGAAGC TAAGGCTAACAGCAACAGAGT CCTTTATGAAAATAATTTGAGA ACCACAACGCATTCTCTGATG GTGCATTCCCCTGGGACAGT CGAAGCTT (SEQ ID NO: 345)
CTP64B	No significant match	CATCGCAGACATTTATTTTAG TTTTGTTAATTTCAAATATTCA TTAACCTCTTGTATCAGATTTA AGGCAGAGAAAAGATACACG CCCCTGGTTAACTGAACCGG GGTTTAGATAGTGTAGTCCAC CCTGGGTTCCACCAGGGAGA CCTCACCCGAGATGACAGGT CCGGTTGCTGGTGCACAGTC GAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTA ACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAG TGATATGACTGAAACCTCATT TAACCTTTTAGAACTACCAGG AGGAGGTTCCCAAGGATCCC AGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTTGCTCTTAAAGAGC ATCTTAAGTGAGAGATCATGA CAATCTTTGGCCACTCCAGGT TTTCTCATCTACTACATGATCT GTTCCCAACAATAAGCCATTG AAATTAAGGTCTCCAGAAGT TTATCTGGGGTCTGTGATTG AAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 348)

CTP73B	No significant match	CCCATAAGAAACATCTTTAAA ACATTCAGAATACTCAGGATA ATCAAGGCTAATATTCCTATA AATTCCTTACGTGTATTATGTA CATTGAGAAAAGTGTAATTA CTCAAATATTATACTCAAAACC CCTTATAGTCTGCTAACTTGC ATGTAGAAACATCTGAAGTAA CATGCTGCCTACTAAGCTT (SEQ ID NO: 349)
CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAAT GGAAGAATTAATGAGCTTACA TTAATTAGTATTGTAATGTGTA AAGGAAGCCCAGCAAAATTTT TTGAAAACCTTGATGATCCCAA CGTATTTACCATTGTATGTTAA AGCAAAATAAATCACCATTTT TTA (SEQ ID NO: 350)
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAA GTGATTCATTTGTAAATTATCA TGGTTTTCTGCATTAATG CCATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCCTAAAGCGA CGANTTTTTNTGGAAGGCTTT GGTCCAAGGCCATTTTGGCG GCTATAAACGGGGTCTCCGG AACCAAAGGGAGCACACAGC TCTTCTTAAATGAAGGTGTT TACGCCCCGAGATGAAACAGA ATTCTATTTGGGCAAGAGATG CGCTTATGTATATAAAGCAA AGAACAACACAGTCACTCCTG GCGGCAAACCAACAAACC AGNAGTCATCTGGGGAAAAG TAACTCTGGGCCCATGGAAAC AAGTGGCATGNGTTCGTGC CAAATTCCGAAGCAATNTTCC TGCTAATGCCATTGGACACAG AATCCGAGTGATGCTGTACCC CTCANAGGATTTAAACTAAC GAANAANCAATAAATAATGT GGATTTGCGNTCTTNGG (SEQ ID NO: 352)



CTP77D	No significant match	CAATTGGTTTAGTTTTATTTC AAATTGTACAAAATGGCCATA AGCGGCTATAAAAAATTCGT TTTCGGAACACGTGGAAATTC AGAAAGAACAACAAAGCAGGT TATCATTTACAGTGTAATGG AAAAGCTCTCTCTGAGGCAG GAATCACAACTCTTCCTTCTT CTTCCCCAGTCTCTCGTGGTC TCCTTCCCGGAGCGCTCGAA TGAAACTGGTAAACCCCGATT CCGTCCGATCGC (SEQ ID NO: 353)
CTP79B	No significant match	CATATATATTCTTTTTTATTCT TGTTATACCTTCCCAAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTC AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 354)
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG GCCATGGTAGCGGTAAAAGC TT (SEQ ID NO: 355)
CTP92A	No significant match	GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGA TTGTTTAATCCAACCTGGGAGG GTAAACGGGAGACTCTTTGG CCTGTCAGTGACAAAATGGTT TGTAAGAAAGAAAAATAAATA CGATATACAAGTAAGTATAAC TAGCACTCAAGCTT (SEQ ID NO: 356)

CTP99A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 357)
CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGT TTGATTTTAAAGTTTATATAG TTCTTAGTTTTGAAGAAATCCT TCAAGAACAGTTTCTCTAAAG AGCATGTTTTAATTAAATGCTA ATTAATTACCTTCTTAGTTTT CCAATTTAGTAGGCCACTTTC AATGTCTATTAAAGTGAAATAA ACCTTCTGAACTTAAACATTTT TAAATCGATTAAAAATTGTGTC AAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTTTTTCAAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTT ATACTAAATAAATATCAAATA CATTCTTCAGAAAGATGTTTC TAGTATTTTTCTTAGGTCACTT CCATATGTAGTATGTACAGTG AGACCACTTTTTAAAAAGCAA TGACTIONAGGCAAACCAACCCT AATGGTTTGTAGACCATTTC CCTGTTTTTAATTAAAAATCAT AGGGTTGTGCTTCTGTATAAA GTTTGTACATTTCAATGTAA ATACTGACATT (SEQ ID NO: 359)

CTP109P	No significant match	ATGCAACCACACGGAATTTAT TGAACATTTTACAAGTGATTT CATTAAAGGAAGGCTTTTTCG TGCCTATATTGGTTACCATCA CTTTTGCCCCTATCACAATCT CATGGTGTAGTCCTTGCATGT AGCAGGAACTCAACAAATGTC TGCTAAATTGACAGATGGAGC CCCAGACGACCTAAACTTGC ACTTTAGAAGCACTTACTTCA TCCTGAGCTATTATGAATAAG GAACTCAAGTGACTGTTAAAA GCATTCTACTGATGAGTTGGT AATGTTCTAAAGCAACATATC TCAAAGGAAAGGATATTGAGT TTGTCTCCACCATAAAATCCT ATTTTTAAACAAAGGTACTACT TAAAAATGGTCTTCCAAAGGC CTCAGCAGAGGTTCTAAAGAG ATGTGACAATATGCCGAAGCT T (SEQ ID NO: 360)
CTP110A	No significant match	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAA AAAGAAAGGAAGACAGGCAA ACAAGTGTTTTACAGGAGCAA CAGACTTCAAGGTCACCCCCA CAAGACACCCTGCACAGCAG GGACGGGGACAGGGAGGAT GACCTCTTAGGGCCTGTGCC TTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGT GTCTCCTCTTCTGTCATCTAT GCCGAAGCTT (SEQ ID NO: 361)
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGA ACCACCATGCCCAGCCTGTTC TTTTTTTATCTCTAGGTGGTG CTCTCCAGCTGTAGTAGAAAT AGCATTTGTATTGGATCTATTT TTTTAAATAGGGACTAAATAC AGACCATTTTGTAGAGTGAA ATGCCAAACAAGAACGAGATT TTTCTCTTGGCT (SEQ ID NO: 362)

CTP116A	No significant match	AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAA AACACTTCATTGTTGAGAAAT CACTTACAGAATGGTGGCTAT CAAACAAATAATTATAAATTTT TAAAGCACAAGTCACATGTTT TGTAACCTCCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTG AAAACATCAGATATGTTTTGG AAAAGTCTTAATTTGAGAACA ACTGAAGGAAGTTAATCCAGA ATCTATATGTAGTTAGCTATTA ATGATGATGCTTTATTGACAG TATATTGCTAATATATTTCTTC ATGAAATCTGAAGTTAAATAG TTTCGTTGTGGAATAGTGCA CTGTAACATTTCCCTTACGAA GTTCAATAAACCAGCTTTGCC ATAAAAAAAAAAGCTT (SEQ ID NO: 363)
CTP124B	No significant match	ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCA TTAATAGCTAACTACATATAGA TTCTGGATTAACCTTCCTTCAG TTGTTCTCAAATTAAGACTTTT CCAAAACATATCTGATGTTTT CAATTAAATGTCACAGCTAAA ATAAATTCACACAGGAGTTAC AAAACATGTGACTTGTGCTTT AAAAATTTATAATTATTGTTT GATAGCCACCATTCTGTAAGT GATTTCTCAACAATGAAGTGT TTTATAAATATTTTGGAAAATA TCTAAAACCTCTATCCCCATT CAACTGATAAGTATGCTCTTT TAAAAAAAAAAGCTT (SEQ ID NO: 364)

CTP126A	No significant match	AAAGAAAGTAATTATGGAAC AGATTTTAAACATTGTAAAATA CTAAATGATCCTTCAGTTGTA AGTTGATATATATTTGTAACCT TTGTGAAATTGTATCCTTATGA AAATACCACTTTTGTGGAAGA GAGAATCCAACATGTAAATAT TTAATTAAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAA ACAGTGTATATAGGTCTAATA ATAGCTCTGGAGCAACTTTTA TCATGAGTCAAATATATTAAAC ACATTGATGTCTTCTTGGTAT ATCTGAAAACAAGAGGTAGAA GTCCTGTTGAGAGTCTTTAAA ATAAACTATTTTACAAATGTA AAAAAAAAAAGCTT (SEQ ID NO: 365)
CTP133B	No significant match	CCAAAAAGAGCCATGCCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACANTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTTCAAGAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 366)
CTP134A	No significant match	CCAAAAAGAGCCATGCCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACATTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTTCAAGAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 367)
CTP143B	No significant match	AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAAC TTGGGACTCGATGCCGGGAC CCCAGGATCATTACCCGAAG CTT (SEQ ID NO: 368)

CTP144B	No significant match	GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAA CTGGTAACTCATGTCCCATCC CAGTCCCGAGTACTGGACCA GGGAACTCCAGCCACAGTT GAGGGAAGGCCACCTGTTGG CTCTGGGGCAGCAGGTCATC CAGTGGGCTTCAGGAGTCAC CAGGCCTCTGACCAGTTCCTC CCCACCAAGCAGTTTCAGAGT TGTCGCGCAAGTCTATTTAC ACCTCTCGTGTATGCCGAAGC TT (SEQ ID NO: 369)
CTP145B	No significant match	GGA CTGATAATAATAGGATTT TATTTCTAAAATTTATCTTAGA GCTTTCAAAGAGTATAACACA CAGATCTTTACCACCACACCC CCCTTGCCTATACAGGAAACA ACCAAGTTGTGAGAACATTTA TCATGCACAGACATCAGG GCTTGCAGGTGCTACACAGG AATCACAAATGCTGTTCCACA TCATGTCTTCTGTTATGCCGA AGCTT (SEQ ID NO: 370)
CTP149B	No significant match	AGGAAGAATAAAAACATATAA AAACATTTATTCACTAGGAATA ATTGTGGCAGACACAATCCAG TGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAAC CATACTTTAAAAAAGAAAGG AAGACAGGCAAACAAGTGTTT TACAGGAGCAACAGACTTCAA GGTCACCCCCACAAGACACC CTGCACAGCAGGGACGGGGA CAGGGAGGATGACCTCTTAG GGCCTGTGCCTTCGCAGAGG TGCTCGGCGGATGGGTGTGG TCTTCTTGGGTGTCTCCTCTT CTGTCATCTATGCCGAAGCTT (SEQ ID NO: 371)

CTP150A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 372)
CTP154A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 373)
CTP164A	No significant match	AAGCTTCGGCATAACGGTGTG AGGTTACAGTCCAGTTTTGTG TGCTTTACTACACGGTTTGGT TACAGGACTTCTGTGCATTGT AAACATAAACAGCATGGAAA AGGTTAAATACCTGTGTGCAG ATTGTAAGATCTGGTCCGGAC TTGCTGTGTATATTGTAACGT TAAGTGAAAAAGAACCCCCCT TTGTATCATAGTCATGCGGTC TTATGTATGATAAACAGTTGA ATAATTTGTCCTCAGACTCTTT ACTATGCTTTTTTAAAATTAAG AAAAATGTAAATATAGTAAAAA TCTTCCTATGCAATTAACCTG G (SEQ ID NO: 374)
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGA CTGTTGGAGGTATGGACGCA CACAGGAGGGCCAGGCCAAG GCACGAGTTTTTCAGTGAAGG GGGTAAAGCATCACAATTTAA AATGTTTGCAATTAACTGGT TTGTAAATATC (SEQ ID NO: 375)

CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAAT TCAAGAGATTGATCCATTTT CAGAGACTGCACCTCTTAAAA TGTTCCTTTTACATCTGTTTA GTGGATCAAAAGCTT (SEQ ID NO: 376)
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCAAATCACAAAT CTGATTCAAGAGAAGGAAAAA AATGATGAAAAACATCTCATC ACACAAAACCTCAGTGTGGTGT CTCTGATAGTCATCAGCCAGC AGAAGCTT (SEQ ID NO: 377)
CTP202C	No significant match	AGAAAAAAAAATTGATAATTAG GTGCAGATAGAAAATATGAAT TAGAAGAGGTTAATTCAAGTG ATCAGCCTGAAAGTTCAGCTT CATTAGCTTTGTGGTAAATCC ACCACTTCAGATAGTAACTAA AGTAAATTTTAAATTTTATAAG AATAAAGTAATCCCTGAAAAG AATTCACTTTTTTCCAGAAAG AAGCTTATAATTAAAAAAAAAA AGCTT (SEQ ID NO: 378)
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATT TTTAGATCAACCAACATATTT AATATAAAACCTTTTAATATA CAAACCTGTAATCACAATTGCA TCCACGTAGCAGCGAGGGAA TGGGGTGTTCAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGA GGAAATTCTCTTCTAAGGAGG AGCCACTTAGCAGTGGACCT GAAGAGGCTGCTGGCAACAA GAGCGGCAGCTCCAAGAAAA AGAAAAAGCTCCAGAAGCTAT CCCAGGAAGATTAGAATGGA CATTTTACCAGGTGGGGCAA CCCACATGATTCCAAACCCAC CCTTATATCCCAATAAAAAACA AATTCACAGG (SEQ ID NO: 380)



CTP222D	No significant match	AAGCTTACCAGGTGAAGAGT GGGGTTGTCATGACCTTGGC TATGACGCCCAGCATTTCGAG GTGGCTCCCTCTATTCTTTAC TTTGGGCATCATAGAAAACGT GTCTCTGGGGGATTAATCTTA GAGAAAAATAAAGCCTTTCTG CTG (SEQ ID NO: 381)
CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAA TGAGGGGGAAGAAGTGCTGT GCCAAAGTGACAGCATTTCAGT GAGGAATAAAGAAAGGAGCT CAGTGGTAGCAGGATGTTGA GCTTCCAAGAAAATCTGGTGG TGGTGAGAAAGTGGCTGCTG TGCCTGCAAGGAAACAGAG CGATTAAAGAAAGAGATGTGA CAGGGTAGGTGGAAGAGATA GCCAGAAGTTAGAAATGGGTT ACACTGAAGAAGTAAATTATT TGATTAAACAATAAGTAAATAT ACTGGGGATAACAAAAGCCT GATTTCTCCACTGTCTCAGAA GGGATTTGCAAGTATGG (SEQ ID NO: 382)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAA GCAAGGCAGTGTCAAAGGCA ACCCTCCCAGCAAGACTTCAG AAAACAGCTGGCAGAACTACA GGATCTGGTGTCTGGTGTGTA AAATACTCTCCTCCCTGTTCA AATGATTGAGAACATGTGCAA AGTGTGCTAGCTTTTCATCACA TATACATAACAGCATTATGTAT CAAGTTACCCTGTTCAAACAA GGAGCAGGCTTCCTCTTTTGG ACTTAAATGACATGAAGTGAG AAAAAAAATGAGAATAACCNT CNNGGGAATTATAGAGGGTTA TAATTCTATCCCNACTATTTCA ATAAAAGCCATCACGGG (SEQ ID NO: 383)

CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAACTGTTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTAC ATCAGTTTGAATCGATTCAAG AAGGTCATCGCTCAGGCCGT CCCAATACACTGACCTCAAAC TATCAGGCTCAAATCTTAGAG TGGGTCAACACAAGCCCACT CAATGCAGAACAAATCCGAGT CAAACGTCATGAAAAACACGG TGTGTCCGTGTCTGTTGAAAC TCTTCGCAAGTTTTTGCGAGA TTCAGGCATGGTCTTCAAACG CACCCGCCACAGCTTG (SEQ ID NO: 384)
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**REMARKS**

This amendment to the specification is made to replace the original sequence listing with a sequence listing that complies with the sequence rules, 37 C.F.R. §§ 1.821 - 1.825.

In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned representative so that prosecution may be expedited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made**".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 400742000200. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated: April 5, 2002

By: 

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**Version with Markings to Show Changes Made****In the Specification**

On page 50, the paragraph beginning [00316] has been amended as follows:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT  
ACG ACT CAC TAT AGG GCG 3') **(SEQ ID NO: 385)**

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA  
GTA CGC GGG-3') **(SEQ ID NO: 386)**

Please substitute **TABLE 1** with **TABLE 1** amended as follows:

**TABLE 1**

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt <b><u>(SEQ ID NO: 1)</u></b>	cgcttccgcaacaagtccttt <b><u>(SEQ ID NO: 2)</u></b>
C2	c-erb B-2	AB008451	507	gtgtttgatggtgacttggaat g <b><u>(SEQ ID NO: 3)</u></b>	gtactccgggttctctgctgtag g <b><u>(SEQ ID NO: 4)</u></b>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgtc tt (SEQ ID NO: 5)	ccatgctgcataaagggtgtga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtggtggt g (SEQ ID NO: 7)	cgagaggtagattgcccttct tt (SEQ ID NO: 8)
C5	Metallo- thionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgcttt gaca (SEQ ID NO: 12)
C7	Metallo- thionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaattccc at (SEQ ID NO: 15)	tggaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgccttctgagccagg ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21 )	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcacccattggacct (SEQ ID NO: 23)	gctgttttgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	tttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttctt g (SEQ ID NO: 27)	tttcatgagtgaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgtgttgaaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatggt (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaattgaagcctttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacggtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttcttgg a (SEQ ID NO: 35)	tgatggatacactgcatactct gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcaccctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgtttctc ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF054833	301	tcacctccaactgattccaact ctgg (SEQ ID NO: 43)	gtctgtttgccatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	cttggtcaactcccaaatcgta tca (SEQ ID NO: 45)	gtgcatatccctggctcttgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB032025	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttcttctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF095638	260	agcggtcagtgtaaggaggt gg (SEQ ID NO: 49)	tgtcccagggcacgatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagag caaggt (SEQ ID NO: 51)	acctgggtccgaaacatcga ggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaattgaacccaaacaaa ggca (SEQ ID NO: 53)	cccgcatcctctaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagacctgttgatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatca aagac (SEQ ID NO: 57)	cacttcttctgtgaccacaat ccca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgctgtcactggat gaaa (SEQ ID NO: 59)	caccaggtgcccactattc atgttt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgcactatcatcagagcatgcc tcct (SEQ ID NO: 61)	tccatcctaggaccccgagat catgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggaccctttccgcgactggtac c (SEQ ID NO: 63)	tgatttctgccgactgggtggct  (SEQ ID NO: 64)
C33	IL-10	U33843	472	cggtgccctgctggaggacttt aaga (SEQ ID NO: 65)	ggatgacggggttctccaag cagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacacc gt (SEQ ID NO: 67)	ttgccaacagcctcaaagaa cgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaac cacttc (SEQ ID NO: 69)	tggcaaatacacagagaaa gccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagagggttcagccagt gcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagc gtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgcctcgtttgtgaa ggg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaag gtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccct cgata (SEQ ID NO: 75)	tgtgtgtgcagggtgaagtgtt tgg (SEQ ID NO: 76)



ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctgggtctgttgctgtcctcctggt ta (SEQ ID NO: 77)	ggtcagtgaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF211257	498	tgattgttctctgccaccaaagt gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB020986	503	gccttaccctcaggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB026988	510	aggtgtccctgcagcccaactt c (SEQ ID NO: 85)	ggcgggcggtcacctactgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagctttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF019759	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF039223	359	ctccagggtgggcttcaggac gt (SEQ ID NO: 91)	tggggccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF032025	350	ttctcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggcaagggacgc (SEQ ID NO: 95)	tcacgtagcccacttcgtccac c (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggcccacattgtgaaaactc agaaa (SEQ ID NO: 97)	gaccaaggcaaggttgaaa agggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagcaaatggc (SEQ ID NO: 99)	ttgccataggaagaaagtgg gctgttt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattgaaaatggagccttcagggaat (SEQ ID NO: 101)	ataattccaagctggatggcagagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggatttct (SEQ ID NO: 103)	atccttctctccttgccctctc ctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttctgctcctcatggcc (SEQ ID NO: 105)	cttaaatacagcccggcgca gcg (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtccttcatgttccagagggtg (SEQ ID NO: 107)	ccagatgtgtcaccttgatgaaggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttgagcaggtggtgttgga aaag (SEQ ID NO: 109)	gcaaatacacagaggaagc cttcgcc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagtggagctggtggcgtag gcaa (SEQ ID NO: 111)	ggcaaatacacaagaaag ccctccc (SEQ ID NO: 112)
C57	p38 MAPK	AF003597	506	ctggtgacccatcttatgggagcagat	tttgcaaagttcatcttcggcatctgg

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
				<u>(SEQ ID NO: 113)</u>	<u>(SEQ ID NO: 114)</u>

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaattgatgtgtttctgtggaaaaaaggcag gcccctgcaaaaagggtccgaatcgggggtccccctctgtggaggccac agcaaacctcctcacagcccactggtccttaagagatgcatgtgtcca cccatcagcacaactacgcgccacccccctccaccaggaaggactat cccgccgccaagagggcgaggttgacagtggtagagtctgaaac agatcagcaacaaccgcaaatgtgccagccccaggctctcggaacg gaggagaatgacaagaggcggaacacacaacgtcttgagcgccag aggaggaacgagctgaaacggagcttcttgccctgctgatcagatc ccggagttggaaaacaatgaaaaggccccaaggtagtgatccttaa aaaagccaccgctacatcctgtccgtccaagccgaggagcaaaag ctccttccgaaaaggactgttgcggaagcg  <u>(SEQ ID NO: 115)</u>
C2	c-erb B-2	AB008451	gtgtttgatggtgacttggaatgggggcagccaaggggctgcagagc cttcctcacaggacccagccctctccagcggtacagtggaggacct acggtacccttgccccctgagactgatgtaagggtgccccctgacct gcagccccagcctgaatatgtgaaccagccagaagtttgccgcag cccccttgccctagaaggcccttgctcctcccgaccggtgtgc cactctggaaaggcccaagactctgtccccaagactctctccctggc aagaatgggggtgtcaaagacgttttgccttgggagtgctgtggagaat ccggagtacctggcaccggggcagagctgcccctcagccccacc ctctccagcctcagcccagccttgacaacctgtattactgggaccag gatccatcagagcggggctctccaccagcaccttgaggggacctt acagcagagaaccggagtag  <u>(SEQ ID NO: 116)</u>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcttcagggctgctcttttgccatcctgacactcaccgccac cgctgggacccaactatctcagatacctgtgaactgtccttccgggct cgagtggccaactaccaacgggatggcccatgtgcatgctcgacaat caggggtgtgctccaaattactacccaatagctttagtgtcctgaaca acagcgttgtcctagagcatagcagccaatgttcgccagatgtgcag cgctcaacagtccaatgaagataatgtcactcaggtgaggacctct attgaaggtaactgtgaagaggagaggaaacgcctgtgcgagaac attgtggccatctgaaggacgcacaactttcatccagaagaaagcg gtcaagaactcagtgatgtccaccctgactacggggcccgattcagg ctcttttgacaaatacaatgctgagaaacctaagaacgcgattcacac ctttatgcagcatgg</p> <p><b>(SEQ ID NO: 117)</b></p>
C4	p53	AF060514	<p>acttttcgacacagtgtggtgggtgccttatgagccacccgaggttgctct gactataccaccatccactacaactacatgtgaacagttcctgcattggg aggcatgaaccggcgcccatcctcactatcatcacctggaagactc cagtggaaacgtgctgggacgcaacagctttgaggtacgctgtgtgcc tgtccgggagagaccgcccgtgaggaggagaattccacaaga agggggagcctgtcctgagccacccccgggagtaacaagcgagc actgcctcccagcaccagctcctcctcccgcaaaagaagaagccac tagatggagaatatttcacccctcagatccgtgggctgaacgctatgag atgttcaggaatctgaatgaagcctggagctgaaggatgccagagt ggaaaggagccagggggaagcaggggtcactccagccacctgaag gcaaagaaggggcaatctacctctcg</p> <p><b>(SEQ ID NO: 118)</b></p>
C5	Metallothionein 2	AB028042	<p>gactccagccgcccctctcgccatggatcccaactgctcctgcgcgcg ggggggctcctgcacgtgcgcggctcctgcaaagcaagagtgca gatgcacctcctgcaagaagagctgtgctcctgctgccccgtgggctg tgcaagtgtgccagggctgcatctgcaagggcgcatcggaagaat gcagctgtgtgctgatgtggggagagcctattcctgatgaaataga gcgacgtgtacaaacctacagttgtggggggttttgggtcttttgtttg ggccaactctgaccggttgctactacattcct</p> <p><b>(SEQ ID NO: 119)</b></p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactcctgccacaatgtacaaaatgcaactctgtctt gcatcgactgacgctgtactgtcgcaaacagtgacattacttcaa gctctacaaaggaaacagagcaacagatggagcaattactgtggatt tacagttgctttgaatggagtaataattatgagaacccccaaacttcca ggatgctcacatttaagtttacacgcccagaaggccacagaattac acacctcaatgtctagcagaagaactcaaaaacctggaggaagtgtct aggtttacctcaagcaaaaacgttcactgacagacaccaaggaatt aatcagcaatatgaatgaacactctgaaactaaagggatctgaaac aagttacaactgtgaatatgatgacgagacagcaaccattacagaattt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctccgtcctgcctgcctc gcctcgctcgcctgcctgggctcgagatggaccccgactgctctgc tccaccggtggtcctctgcacgtgcgtggctcctgcaaatgcaaggagt gcaaatgcacctcctgcaagaagagttgctgctcctgctgccccgtggg ctgtgccaagtgtgccagggtgcatctgcaaggggtgcgtcggacaa gtgcagctgctgtgcctgatgtgtgagaacacctgttctgatgatatag agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgtttctacattccgtttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcaagagctggaattccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcgacatgccaggg acaaccactgagcccatactcctcccgctcactgacactgacctctg ttagccgtctctccccatacgcatctctgctagtgtcacgatgacatcg ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtcccatgaaactgcccacccctatgtgtccctgctggtcctgtttccat ctcgggtggcaccatacaaggacacagcactctggcagcccaaattcct gcagagacgaggccctgcaggcagttggcagaagaggccggcga ggattcctgtcccagctccggaagcttctctttagtaataaagctgtct gtgggcgtgtctgtgtgagtgaggagggtgtcatgtccagttggg agttctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagcccatcctgtttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcacgagacactc cctgagaaatacaacaccagagtaggagacaaaggaaccagctct ctggtggccagaaacagcgcattgccatagctcgcgctctgttagaca gcctcatattttgcttttgatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgatcgccaccgctgtccaccatccagaatgcagattt aatagtgtgtttcagaatggcaaagtcaaggagcatggcacacatca acagctgctggctcagaaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtggatcggaggctccatcctggcctcgctgtccaccttc  cagcagatgtggatcagcaagcaggagtagcagcagtcggggccct  ccatcgccatcgcaaatgcttctagatcgactcgagcagatgcgtag  catttgcgcatgagtgaattccgaagtataaattggccctggcaatgg  ctagcctcatgaaactggaataagcgctttgaaaagaaattgtcctga  agctngtatctgatatacagcantggattgtagaactgttgcgtacttg  acnttgatccaagttaactgttcccttggtatattttaataccgcctattcc  aggattctctagaggctggcaagagtcgaaccagttgtcatttctgtcttg  ccggtctaacagggttggaaggccgagccttaggacccacttctgt  cttacccaatgtttctgcccagaacaccgtgggtggttaattgcctgaa  gttg</p> <p><b>(SEQ ID NO: 124)</b></p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagcccttggcccagacagtcaaatcatct  tctgaaccccaagtgaagccagtagctcatgtttagcaaacc  gaagctgaggggcagctccagtggtgagccgacgtgccaatgacct  cctggccaatgacgtggagctgacagacaaccagctgatagtgcgct  agatgggtgtacctcgatagctcccaggctccttcaaggggccaagg  tgccctccaccatgtgctcctcaccacaccatcagccgcttcgctg  ctcctaccagacaaaggtaacctactctgccaatcaagagccctgc  caaaggagacccagaggggaccgaggccaagccctggtacga  gccccatctacgtgggaggggtctccaactggagaagggtgatcgact  cagcgctgagatcaatctgcctaactatctggacttgcgagctgggc  aggctacttgggatcaitgccctgt</p> <p><b>(SEQ ID NO: 125)</b></p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatgccccctccgagtt  tctggcagcagcggtccatgacatcaagcacaagggtccggggc  agccgcatgacctggtgttgggtgcgcccagatgaggaccac  ctgtatcgggaggagatgttgagatggccagagtgggtgctgcat  gagggtgcacacagcctattctgcctgctggccagcccaaggctatg  ttcaagacatcctgcggcagcagctggccagccaggtgctccgcatgc  tccataggagcagggccacctttatgtctgtgggagtgcgatggcc  cggtatgtggccataccctgaagcacctggtggctgccaagctgagc  ctgagtgaagagcaagttgaggactattttccagcttaagagccaga  agcgctatcatgaagatatcttgggtgctgtttccctatgaggtaaaa  aagatggtgcagcaaaacagc</p> <p><b>(SEQ ID NO: 126)</b></p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagtagctatttctggtaacc  cagtcattaaagaaagaaagatactagatgagcatgatttgaagtca  gaggagatgttgtaatggaagaaatcaccagggtccgaagcagc  aagagaatccaggacagagaatcccaagacagaaagatcttcagg  ggcctagaaatctgttgctatggaccttaccacatgccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatgggtgcacctctgtggggcttctgtggtgaaggagccttc gttattcacctcagcaagggcactcatccagtggtagtcgtgcagccg gacgcctggacagaggacagtggtccatgcgattgggcagatgtgt gaggcacctgtggtgacccgagagtgggtactggacagtgtagccctc taccagtccaggagctggacacctacctgatcccgagattcccaga actgctgcagact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggacccgggg aatgcacctgcatgtctggaggaatctgtatctgtggagacaattgcaa tgtacaacctgcaactgtaaaacatgtcgaaaaagctgctgtcctgtctg ccccccggtgtgccaagtgtgccagggtgcatctgcaaaggag gctcggacaagtgcagctgctgtgacctgaaccgcatccgtggtgtggg gctggcgggggcggtgtgtggtgacacagccccggaaatgtctgt acagtgcattagttgagaaactgaaattattgtaccataggttatgctttta tatattgtctcagaggtggtggtggtgacactcatgtaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgtgttgaaatatacccataagcgttactgcactgttctctac ccccggaacaggggtgaagagagctattctgtgtcccgaggaaatat attcacctcaagacgattccatttctgtacgaagtccacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagcttcagagaaccacctcagac aatgtcttagctgtctcaaattgccgaaaagaatgaaccaggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtggtgcaggaagaac cagtaccggtttattggagtgaaccctttccagtgcataactgcagc ctctgctcaatggcaggtgcagatctctgccaagagaagcagaac accatatgcacctgccacgcggttcttctaagagagcatgaatgcg tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagactggctgctagaaatatcctcttactcatggtcgaatcacaag atttgtatttgggtctagccagagacatcaagaatgattctaatttgtgt caaaggaaacgctcggctacctgtgaagtggatggccctgagagca tttcaactgtgtgtacacattgaaagtgtgtgtggtcctatggattttct gtgggagctcttcttttaggaagcagccctacctgggtgacagctg attcaaagtctacaagatgatcaaggaggctccggtgctcagccc tgagcatgcacctgctgaaatgtatgacatcatgaagacgtgctggat gctgatccccgaaaaggccgacgtccaagcagatcgtgcagctaatt gagaagcagatttcagatagcaccatcatatttattccaacctgcga actgcagccccaaccagagcgcccggtggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaattgaagcctttctcaaggagataatgctaaacaacgaaatgaag  aaagaagaaaacattgcaatgcaaaaaggatgagcagatcctgaat  tgcagcccatgtcataagttaggctagtagtaaccagcgctccgtctgc  ggggggcgccaaaagggtactacaccataagcagcaacctggtag  cctcgagaatgggaaacagttggccgtgaaaagacaaggactctatta  cgtctatgcccaagtcacctctgtcctaactgggcagcttcgagtcgaag  ctccgttgcgtccagcctatgcctccattccccgagtggaacggagag  agtcttactccgcgccgagctcccgcggtcgtccaaaccttgccgc  caacagtcctccactggaggagtagttgaattgcatccaggtgcttc  gggttcgtcaacgtgactgatccaagccaagttagccacgggaccg  gcttcacgtctttggttactc</p> <p><b>(SEQ ID NO: 131)</b></p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttctggaggtaagaaatggaagtatagcagt  tcaccattatttggcacatactgtggaactctgttgcagatcctatcttct  cgaaacaacaaactatactacggtttaagaccgatagcgcaactcc  aatcgtaggtatgaaattgtctggacctcatcacctctggctgtggtgga  acctttatggagacagtggttcctcaccagccccggctatccggcac  ttacccaacaacactgactgtgaatgggccatcatgctctgtctgga  agacctgtcacctgaccttttactttatcagcatgatgatccggagac  tgtgtccagaactatctatactctacgatggaccggatgtaattctccat  cctttggaccatactgtggggcagacaccaacatagctcccttgggtcc  tcttcacatcgtgtctcataaaattcacgcagagtagcagtgatccat  ca</p> <p><b>(SEQ ID NO: 132)</b></p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgagatggacgagaagtccaggggacagaggct  ggatggcctgaacctcatgacatctggaagaactcaaaccgagac  acaagcactctcactacgtctggaaccgcacggaactcctggccctcg  accttaccacgtggactacctctgggtctcttgagccgggggacatg  cagtacgagctgaacaggaacaacgtgactgacctgactctccga  gatggtggaatagccatcaagattctgagcaagaacccagaggctt  cttctgtggtggaaggaggcaggattgaccacgggcatcacgaggg  caaggccaagcaggcgctgcacgaggcagtgagatggaccgggc  aattgggaaggcaggcgctgatgacctccttgaagacacgctgacctg  cgctactcggaccactccacgtctcactttggcgggtacaccccc  cggggcaactctatcttgggtct</p> <p><b>(SEQ ID NO: 133)</b></p>
C20	Pancreatic lipase	M35302	<p>actcagagagcatcctcaacctgatggatttcttctaccctgtgctt  cctacagggcctttgaatctaacaagtgtccctgccagatcaagg  gtgccacagatgggtcactatgctgataaatttctgtaagacaagtg  atgagacacagaaatacttctgaacaccggagattccagcaatttgc  tcgctggagatacggggttctataacattgtctgggaaaagagccactg</p>



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gtcaggctaaagttgcttggttggaagtaagggaataactcatcaattca atatctcaagggattctcaaaccaggctctactcattccaatgagttg atgcaaagcttgatgttgaacaattgagaaagtcaagttcttgggaata acaacgtgtaaacccaaccttccaaagtgggtgcagccaagatca ccgtgcaaaaggaggagaggagaaaacagtcacagctctg  (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggacccctccctcctggccttatgcagggta catgcagcacgccaccaagacggccaggacacgctgaccagcgtt caggagtcccagggtggcgagcggggccagggctggtgaccgata gcttcagttccctgaaagactactgcagcacgtttaagggaagttcact gggttcgggattcagcctctgaggccaaaccaactccagcctctg  (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctccaactgattccaactctggtctgcttactagcactcaccagca ccttgtccacggacataactcaatattactattaaagagatcatcaaaa tgttgaacatcctcacagcgagaaacgactcgtgcatggagctgactgt caaggacgtcttactgctcctcaaagaacacaagcgataaggaaatctt ctgcagagctgctactgtactgcggcagatctatacacacaactgctcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac  (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	cttgtcaactcccaaatcgatcatcagggccaaagttcgtggggaccgca gaagtcaaccagaccgacttaaacggcggtatgagatcaagatgac caagatgttaagggttcagcgcttgggaatgcctcggacatccgc ttcgtcgacacccccgacctggaagcgtctcggtatctgcacaggt cccagaaccgcagcgaggagttctggtcgcggaaacctgctgggac ggacactgcagatcaaacctgcagttctgtggccccgtggagcagc ctgagtaccgctcagcgccggggcttccaagacctatgctgctggct gtgaggggtgcacagtggttacctgtcatcatccctgcaaaactgcag agtgcactcactgctgtggacggaccacttctcacaggctctgaca agggttccagagccgccacctggcctgctgccaagagagccaggg atatgcac  (SEQ ID NO: 137)
C24	Ubiquitin	AB032025	gcagattttgtaaagaccctgacggggcaaaactatcaccttgaggtc gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggagggtatcccgcctgaccagcagcgtctgattttgcgggcaaac agctagaagatggcgaactctgcagactacaataccagaaagagt ccaccttgactgtgtgctgcctgcgaggtggcatcattgagcctcac tccgccagctggcccagaaatacaactgcgacaagatgatctgccgc aagtgtatgctgcctgcacccccgtgctgtcaactgccgaagaaga

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			agt (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcggtcagtgtgaaggagggtgactctgggaatgacatctacggca acccatcaagcggattcagatgagatcaagcagataaagatgtca aaggaccagacaaggacatagagttatctacacggctcctcctcgc cgatgcgggtctcctggacatcgaggagaaaggagatctcatt gcgggaaaggccgagggaacggcaagatgcacatcaccttgtg actcatcgtgccctgggaca (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctgtccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgaggatgagtgctgaagcacacaacaattcacctatcctcgga gtctggaggattcctgcagttcagttcagggctgttcggataatgtagc ctggcatctaagattgctgtagtcatgggcattccttctccagtcagaa acctgtgcagtgggcacaaaactatgttctctgtgaggaaactaaa gtatgagcgttaggacactatttaatttttaatttattgatattaaatg tgatggagtaatttataagtaataagatatttatattttatgaagtgc actgaaatatttattgtattcatttgaaaaagttaacgtaaaatgctatgc ggctgaatatcctcgatgttcggagccagg (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tgaattgaacccaaacaaaggcagagtacacagacactttatgttaa tgtgccccaggatacaaccgtcgtggtcagccctcctcatcgtgg aggaaggtagtcctgtgaacatgacctgcttagcgatggcctccagc tccgaacatcctgtggagcaggcggctaagtaatgggcgctgcagtc tcttctgaggatccaatttcacctaactctgcaaaaatggaagattct ggattatgtgtgtaagggaataaccaggctggaataagcagaaaag aagtagaattaattatccaagttgctccgaagacatacagcttatagctt ttccttctgagagtgtcaaggaaggagacactgtcattatcctgtacat gtggaaatgtccaaaaactggataatcctgaagaaaaagcagag acgggagacacagtgctaaagtcagagatgggtcatataccatcca caaggccagttagaggatgctggg (SEQ ID NO: 141)
C28	Phenol sulfotransferase	D29807	gctccccagacctgttgatcagaaggtaagggtgtctacgtcgcc cgcaacgcaaaagatgtagctgtctctattaccacttaccgcatggc caagggtcacctgacctgacacctgggacagctcctggagaagtt catggctggggaagtgctatgggtcctgtatcagcatgtgcaggaat gggtgggagctgagtcacactcacctgttctaccttctatgaggaca tgaaagagaaccccaaaaggagattcagaagatcctgaagttgtg gggcgtccctgccagaggagactgtgatctcattgtccagcacacgt

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctttcaaggagatgaagaacaactccatggctaactacaccaccttatct cctgacatcatggaccacagcatttctgccttcatgaggaaaggcatctc gggggactggaagaccacctcactgtggcccagaatgagcgcttga tgc  (SEQ ID NO: 142)
C29	GRP94	U01153	aatccagacatcccctgatcaaagacatgctgacgaggttaagga agatgaagatgacaaaacggtatcggatcttgcgtgtgtttgttgagac agcaacgctgagatcaggctatctgctaccagacactaaagcatatgg agatcgaatagaagaatgctgcctcagtttaaacattgacctgatg caaagggtggaagaagaaccagaagaagaacccgaagagacaacc gaggacaccacagaagacacagagcaggacgatgaagaagaat ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat ctacagctgaaaaagatgaattataaattactctcaccatttgaacct gtgtggagaggggaatgtgaaatttaagtcttcttcgagagagactgtt ttggatgctccccgcagcccccttctccctgcactgtaaaatgttgggat tgtgggtcacagaaagaagtg  (SEQ ID NO: 143)
C30	E-selectin	L23087	ttacacggttgctgtcactggatgaaataattgccaaggagtttagggga aacaacttggtcaaagtattctatcaccaacatgcaaaaaaatatttaa atgccacaggcgagtacatggggaaatcctgctaatactttgtgcaa ggattgctaaacacagtcctaataccctttaccctgtgggattcagtgcat ttaaagtgttctagagattttaaagtgttctttatttgcatggctaaagtac aatttccctaattcttaattcagtgaagtgtttagagactttaaaatatatg catgttagagctatgatagggtaaaagttactatcagggaatcttgttatg aagggaacttaattatctgtagtaaatcttttaaaaggggcaa gctgtcccagattacgtgaatcagtgtaaagtgtgaatgttttactata gttgcttttaaaaacatgaatagtggggcacctgggtg  (SEQ ID NO: 144)
C31	gastric lipase	Y13899	tgcactatcatcagagcatgcctccctactacaacctgacagacatgca tgtccaatcgagtggtggaacggtggcaacgactgctggccgacct cacgatgtgacctttgttccaagctcccaatctcatttaccacagga agattcctcctacaatcactggactttatctggccatggatggccctca agcgggttacaatgaaattgttccatgatgggaacagataataagtagtt ctagatttaaggaattattctttatgttccaaaatacgttctctcacacg tggtttctatcatgtttgagacacggtgattgtcccatggtttgattcaga aatgtgttagcatcaacaatcttccattggttaattttgaattaaaatgatt ttaaattggggcatctgggtggctcagtcggctaagtcgtctgcctcgg cttaagtcatgatctcgggtcctaggatgga  (SEQ ID NO: 145)

ID#	Gene Name	Accession Number	Target Sequence
C32	HSP27	U19368	<p>ggaccctttccgcgactggtaccggcccacagccgcctcttcgacca  ggccttcgggctgccccggctgccggaggagtgggcgagtggttcgg  ccacagcggctggccgggtacgtgcgccgatcccccccgcggtcg  agggccccgcgcggccgcgcggccgcgcgcgcgcgcgcctacagcc  gcgcgctcagccggcagctcagcagcggcggtgctcgagatccggca  gacggccgaccgctggcgcggtgccctggacgtcaaccacttcgcccc  cgaggagctgacggtcaagacgaaggacggcggtggtggagataact  ggcaagcacgaagagaggcaggatgagcatggctacatctcccgcc  gcctcactcccaatacacccctgccccctggtgtggatcctaccctggtc  tcctcctccctgtccctgagggcactctcacggtggaggctcccatgcc  caagccagccaccagtcggcagaaatca</p> <p><b>(SEQ ID NO: 146)</b></p>
C33	IL-10	U33843	<p>cgggtccctgtggaggactttaagagttacctgggtgccaagccctgt  cggagatgatccagttttacttgaggaggtgatgccccgggtgagaa  ccacgaccagacatcaagaaccacgtgaactccctgggagagaag  ctcaagaccctcaggctgagactgaggctgcgacgctgtcaccgatttc  ttccctgtgagaataagagcaaggcgggtggagcagggtgaagagcgc  attagtaagctccaggagaaagggtgtctacaaagccatgagtgagttt  gacatctcatcaactacatagaaacctacatgacaatgaggatgaaa  atctgaaacgtgctggagaacaaaacaccaggatggcaactctctc  gactctaggacatgaattggagatctgaaaaataccatcccgagatgta  ggagagccgaccaactgcttgagaaccccgctacacc</p> <p><b>(SEQ ID NO: 147)</b></p>
C34	caveolin-1	U47060	<p>tccgaggggacactctacaccgttccatccgggagcagggcaacat  ctacaagcccaacaacaaggccatggcggaggagatgagcgagaa  gcagggtgtacgacgcgcacaccaaggaaatcgacctggtcaaccgc  gaccccaagcatctcaacgacgacgtggtcaagattgatttgaagatg  tgattgcagaaccagaaggaaacacacagtttgatggcatctggaagg  ccagcttcaccaccttactgtgacaaaatactggtttaccgctgtctgtc  tgccctctttggcatccaatggcactcatatggggcatttactttgccattc  ttctttctgcacatctgggcagttgtgccgtgcaatgaagagttcctgattg  agattcagtgcatcagccgtgtctattccatctacgtccacacctctgtga  cccgttcttgaggctgttgga</p> <p><b>(SEQ ID NO: 148)</b></p>
C35	H-ras, p21	U62092	<p>accatccagctcatccagaaccacttcgtggatgagtagcagccccacc  atcgaggactcctatcggaagcaagtggcattgacggggagacgtgc  ctgctggacatcctggacacagcgggccaggaggagtagcagcccat  gcgggaccagtagcatgcgcacgggggagggccttctctgtgtatttgc  a</p> <p><b>(SEQ ID NO: 149)</b></p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C36	rab2	M35521	agacaagagggttcagccagtgcatgacctgactatcggtgtagagttg gtgctcgaatgataactattgatgggaaacagataaaacttcagatatg ggatacggcagggcaagagtccttcgtccatcacaaggctcatattac agaggtcagcaggggcttactagtgtatgatattacaaggagagata cattcaaccacttgacaacctggtagaagatgccgccagcattccaa ttccaacatggcattatgcttattggaataaaagtgatttagaatcaag aagagaagtaaaaaaagaagaagggtgaagctttgcacgagaacat ggacttatctcatggaactctgctaagactgctccaatgtagaagag gcatttataatacagcaaaagaaattatgagaaaatccaagaagga gtcttgacattaataatgaggcaaacggcattaaaattggccctcagca cgctgctactaatgccacacac (SEQ ID NO: 150)
C37	rab5	M35520	aagcctagtgcctcgtttgtgaagggccaatctcatgaattcaagagag taccataggggctgcttttctaaccctgaactgtgtgtcttgatgataaac agtaaagttgaaatatgggatacagctggtaagaacgataccatag cttagcaccaatgtactacagaggagcacaagcagccatagttgtatat gatatacaaatgaggagtcctttgccagagccaaaaactgggttaaa gaacttcagaggcaagccagtcctaactgtaatagctttatcaggaa acaaggctgatctgcaaataaaagagctgtcgattccaggaagcac agtctatgcagatgacaacagtttatttcatggagacatcagctaaa acatcgtatgaacgtaaatgaaatattcatggcaatagctaaaaagttgc caaagaacgaaccacagaatccaggagcaaattctgccagaggaa gaggagtagaccttactgaaccacgcagccaa (SEQ ID NO: 151)
C38	rab7	M35522	ccccaacacattcaaaaccctcgatagctggagagatgagtttctatc caggccagtcctccggatcctgaaaactcccttcgtgtgtgggaaa caagattgacctcgaaaacagacaagtgccacaaagcgggcaca ggctgtgtctacagcaaaaacaactccctacttcgagaccagtg caaggaggccatcaatgtggagcaggcgttcagacgattgcaagga atgcacttaaacaggaaacagagggtggagctgtacaatgaattccctg aacctcaaaactggacaagaacgaccgggccaagacctcagcgg aaagctgcagttgctgaaggggcagtgagagcagagcacagagtcct tcacaaacaaagaacacacttaggccttcaacacagacccctcttc tcttcaaaacaaaacataaagtcattctcgaatccagctgccaaaaga ccctaccaaacacttcacctgacacacaca (SEQ ID NO: 152)
C39	APO CII	M17177	ctggttctgttgcctcctggtattgggattgaggtccagggggccc atgagtcacagcaagatgaaccaccagctccgcctgtcacccag atgcaggaatcactctacagttactggggcacagccagatcggtgcc gaggacctgtacaagaaggcataccaactaccatggatgagaaaat cagggacatatacagcaaaagcacagcagctgtgagcattacgca

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gggatttcactgacc  (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgcctctgtccccctgttgcgcacgcaggcaagggccagggtggc cgctgccccggagcatccagcaccctcagccggggcccgaggctccc acctgcggcctcggcggtgctcctgcagctcctggctcgacaaggagtg cgtctactctgccacctggacatcatctgggtgaacactcccggtgag ctcccgcggggaccaggcggggctgtagaggcggggcaggggg tggggaacctgtagctagcacagctctccctgggctccagacggatc gctgagctgacatgaagagcggctgggtgtgtccctactcc  (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttctctgccacaaaatgccagtagtaaaacacccatcgata ggaaagtattttgttctgtgcagctctgtcattgggccatggagcgcg gaactggacttccaagacaaatggtaccagcgttcttaaaaagatg cctaattccattcctcgagggtggaccttagtgagatgatagcagactgt actccccccggcagctggcctctgccctgagttgcacgttaacagatt agcctgtattctctcagtggtttgataatggctccagattcattggcgtt agggaagccttttagaatcttcacgtgtcatcgtcgaaattgaaacactg agtgttctgtgatggtttggagatacttccatcttttaagggttgcttctg tctaattctggcaggacctcacaaaagatcgggcctcgtaccaacgtc agacacgatgtcgccgtgtgtgcgttctgtattta  (SEQ ID NO: 155)
C42	leptin	AB020986	gccttaccctcagggaacctgcattccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgagcagctgaac cagcgactcctcagcaggcggaaatgctgaactgagaatgtcagtg ctcagggggccacaggctaaccctgctccactcgtagcattttgtttt cagggcacggcagcatttattactgtgtagccacatccctctgaagcag cagcatagctgacaatttaaaaataagaactaagaacatacctaagac cataacggcagacaagtagcagggccgagactagagttcaggacct ctgactccagagtggtccgggagccaggtaatgctccctggaggtgc aaataggggtggcaggggagaccagaagtgttacaggagagagag gacttgagggtgatttgcaggaggtgagggatgtgaattgctgaatgg cggaggctgtttgttcagtc  (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	agggtgccctgcagcccaactccaacaggataagttcctggggcgctg gttcacctggggcctcgctccaactcgagctggttccgggagaagaa gaacgtgtgtccatgtgtatgtcagtggtggccccgaccgcagacgg aggcctcaacctcacctccacttctcaggaaagaccagtgtagac tcgaacctgtctctacggccggcggaacccgggctgtacagcta cacgagtccccactggggcagtagccacgacgtgtgggtgtagcca

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ccaactacgaggagtagcgcttctctacaccgcaggcagcaaaggc ctggccaggacttccacatggccactctctacagccgacccagacc ccaaaggccgagataaaggagaaattcagcaccttgccaagaccc agggcttcacagaggatgccattgtcttctgccacagactgataaatg catggaggagaacaagtaggtgaccgccc  <b>(SEQ ID NO: 157)</b>
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttcccagataagcctggaggatattaatgat ggatctaaaaaaggaaaacccgagggcactggaattaagaatcagc cgtgggtcaatttgcttcgtcaatccacatggatcagcacctcatag acagcgacgacacagttatctcttgttgaaccatccagaattcaag aatacagtggaaatttttaattgaagaagaagaaattctcttgcac ctaaaaacaatcaaacatgaactcttccaagtgtgaatgatcatagc tgtggaccagcacatttctatgccaccaatgaccactatttctctgatcct tctaaagtatttgaaacatactgaactacactgggcaaatgtgttta ctacagtccagatgaagttaaagtggtagcagaagggttgatgcagc aatgggatcaatattcacc  <b>(SEQ ID NO: 158)</b>
C45	beta-glucuronidase	AF019759	cgccgatgtggacgtcatctgtgtcaacagtactactcttggtatcacg actatgggcacatggaggtgattcagctgcagctggccaccgagttga gaactggtataggacctaccagaaaccaataatccagagcgagtagc gggcagagacaattgcaggctccaccaggatccacctctgatgttcag tgaggagtaccagaaaggctctgcgagcagtatcacttggtgctggat cagaaacgcaaagaatatgtggttgagagctcatctggaatttgctg attttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcactctcactgccagagacaacccaaagcggcggttcctttg gagagaggtactggaaacttgcaatgaaaccgggcaccaccgggtc cgcgccaagtccagtggttgaaaacagcccgttcgacctgaag cctctgtct  <b>(SEQ ID NO: 159)</b>
C46	caveolin-2	AF039223	ctccagggtgggcttcgaggacgtgatcgcgacgcggtgtctacgcact cctttgacaaagtgtgatttcagccatgccctgttgaggcagcaagt acgtgatctacaagttctgacgttgctcctggcgatgccatggccttcg cggcaggggtctcttcgccaccctcagctgcctgcacatctggattata atgctttcgtgaagacctgcctcatggtcctgcctcggtgcagaccata tggaagagtgaacagatgctgtcattgccccgttggttcaagttagg acgcagcttctctctgtcagctgcaagtgagtcacgactgagcacttg acccca  <b>(SEQ ID NO: 160)</b>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C47	matrix metalloproteinase-14	AF032025	<p>ttctcaaaggagacaagcactgggtgttgatgaagcttctctggaacct  ggctacccaagcacatcaaggagctggccgaggactgcctactga  caaaatcgatgctgctctcttctggatgccaatggaaagacctactctt  ccggggaaacaagtattaccgtttcaacgaggaactcagggcagtg  acagcgagtaccccaaaaacatcaaggctctgggaaggatccctga  gtctccagagggtcattcatgggcagtgatgaagcttcacttactcta  caaggggaacaaatactggaaattcaacaaccagaagctgaaggta  gagccaggcta</p> <p><b>(SEQ ID NO: 161)</b></p>
C48	matrix metalloproteinase-9	AB006421	<p>gattctccaagggcaagggacgcccgggtgcagggccccttctatcac  cgagcacgtggcctgctgctgccccgcaagctggactccgctttgagg  acgggctcaccaagaagactttcttctctggcgccaagtgtgggtg  tacacaggcacgtcgggtgtaggcccaggcgctctggacaagctggg  cctgggcccggaggttacccaagtcacggcgccctccgcaagcgg  ggggtaaggtgctgctgttcagcaggcagcgcttctggagttcgcagt  aagacgcagaccgtggatcccaggagcgccggctcgggtgaacag  atgtacccgggggtgccctgaacacgcatacattcctcagtagcaag  agaaagcctactctgcccaggaccgttctactggcgtgtgaattctcg  aatgaggtgaaccaggtggacgaagtgggctacgtga</p> <p><b>(SEQ ID NO: 162)</b></p>
C49	IL-8	U10308	<p>gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga  aatgaggtgtgctggacccaaggaaaaatgggtacaaaaggttgt  gcagatatcttaagaaggctgagaaacaagatccgtgaaacaaca  aacacattctctgtggttccaagaattctcaggaaagatgccaatgag  actcaaaaaaatctatttcagtactcatgtcccgtgtagacctggttag  gattgccagataaaaaatacagtatgccagtttagattgaatattaagta  aaacaatgaatagtttttctaaagtctcatatgttgcctattcaatgtct  aggcacacttacattaaacataattcattgttctgtaaaatcaaagtga  gctggaaatcctggatattttgtgtgttacatcttccacctcacctaca  ggccaggatgcatgagtcctttcaaccttgcccttggtc</p> <p><b>(SEQ ID NO: 163)</b></p>
C50	keratinocyte growth factor	U80800	<p>caatgacatgactccagagcaaatggctacaaatgtgaactgttccag  ccctgagcgacatacaagaagttatgattacatggaaggaggggat  aagagtgagaagactcttctgctgaacacagtggtatctgaggattgat  aaacgaggcaaatgcaaggacccaagagatgaagaacagttac  aatatcatggaaatcaggacagtggtggaatagtggcaatcaaa  gggttggaagtgaatattatcttgaatgaataaggaaggaaagctct  atgcaagaaagaatgcaatgaagattgcaactcaagaattaattct  ggaaaaccattacaacacatatgcatcagctaaatggacacacagcg  gaggagaaatgttgtgtttaaataaaaaggggttctgtgaaggggg  aaaaaacgaagaagaacaaaaaacagcccactttctctatggc</p>



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			aa (SEQ ID NO: 164)
C51	decorin	U83141	gattgaaaatggagcctccaggaatgaagaagctctcctatatccgc attgctgataccaatataactaccatccctcaaggctctcctcccttac tgaattacatctgaaggcaacaaatcaccaagggtgatgcatctagc ctgaaaggactgaataattggctaagttgggactgagtttaacagcat ctccgctgtgacaatggcactctagccaacactcctcatctgagggag cttcacttggacaacaataagctcatcagagtaccgggtgggctggcg gagcataagtacatccagggtgtctacctcataacaacaatatctgc agtcggatctaatagtacttgcacacctggatacaacacaaaaaggct tcttattcagggtgtgagcctttcagcaaccagtgagctactgggagatc cagccatccacctccgggtgtctacgtgctgctgccatccagcttga aattat (SEQ ID NO: 165)
C52	glucose-6-phosphatase	U91844	ctggggatctcagctgcaggattttctacctgtcccatccttacaagaaa gggaaaggagcagtggtgattgatagagaagaagaatggattaagg aaagacttctcgtatcctgcatatcatgcaaatcatgttacaaaaatct aaatcgctttgattatattgaatttttaggtaaggaactcctaagtgggg gaccaactaaagcataactaataggtagttaatgggtaattctgtctt tctatgtttactatgtattcagtgacctagattgtgctgggtcagagcatt cagatatagtcagcttctctacactacatcttctcctgtcagcctag ctcagctttcctagaacttccactgctctacatcgtgctgacacagaga tgctaaaggcagctctagggtagtgctttgtatggttttagtaagctctg aaatctgggcaaaaagggtgaggagagggcaaggagaggaaagg at (SEQ ID NO: 166)
C53	TGFB1	L34956	gaccttctgctcctcatggccacccactggagagggccagcacc tgcacagctccggcagcgccggccctggacaccaactactgcttca gctccacggagaagaactgctgctcggcagctctacattgacttccg caaggatctgggctggaagtggatccatgagccaaggggtaccacg ctaactctgctggggccctgcccctacatttgagcctggacacgca gtacagcaaggctctggccctgtacaaccagcacaacccggcggt cggcggcgcgctgctgctgcccagggcgtggagccactgccatc gtgtactacgtgggcccgaagcccaagggtggagcagctgtcgaacat gatcgtgcgtcctgcaagtgcagctgagggcccgcccgctccggcag gccccgcccacggcaggnccggccccgccccgccccgctgcgc gggctgtatttaag (SEQ ID NO: 167)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C54	ZAP36/annexin IV	D38223	<p>gacacgtcctcatgttccagaggggtgctgggtgcgtgctcgccgggtgg  cagggatgaaggaaatcttctggacgatgctctcatgagacaggatgct  caggacctgtatgaggctggagagaagaaatggggaacagatgagg  tgaaattctgactgttctgctcccgaaccgaaatcacctgttgcattg  gtttgatgaatacaaaaggatatcacagaaggatattgagcagggtatt  aaatctgaacatccggtagcttgaagatgctctgctggccatagtaaa  gtgcatgaggaacaaatctgcatacttctgtaaaggcttataaattctat  gaagggttggaacagatgataacacctcatcagggttatgggtct  cgagcggagatcgatatgatggacatccgggagagctcaagaggctt  tacggaaagtctgtactcctcatcaagggtgacacatctgg</p> <p><b>(SEQ ID NO: 168)</b></p>
C55	N-ras	U62093	<p>gttgagcaggtgggtgtggaaaagcgactgacaatccagctaact  cagaaccactttagatgaatatgatccaccatagaggattctaccg  aaaacaggtgggtatagacgggaaacctgtctgtggacatactggat  acagctgggtcaagaaggtacagtgcatgagagaccaatacatgag  gacaggcgaaggcttctctgtgtattgc</p> <p><b>(SEQ ID NO: 169)</b></p>
C56	K-ras	U62094	<p>giagttggagctgggtggcgtaggcaagagtgccttgacgatacagcta  attcagaatcactttagtgatgaatatgatcctacaatagaggattcctac  aggaaacaagtagtaattgatggagaaacctgtctctggatattctcga  cacagcaggtcaagaggagtacagtgaatgagggaccagtacatg  aggactggggagggtcttctgtgtattgcc</p> <p><b>(SEQ ID NO: 170)</b></p>
C57	p38 MAPK	AF003597	<p>ctggtagccatcttatgggagcagatctgaacaacattgtgaaatgtca  gaagcttacggatgacctgttcagttcctatctacaaattctccgagg  tctcaagtatacattcagctgacataattcacagggaacctaaacctta  gcaatctagctgtgaatgaagactgtgagctgaagatcctggacttgg  actggcccgacatacagatgatgaaatgacaggctatgtggctaccag  gtgttacagggtcctgagataatgctgaactggatgcattacaaccag  acagttgatattgttcagtgaggatgcataatggccgaactgttgactgg  aagaacgtgttctcctgtacagaccatattgatcagttgaagctcattta  agactcgttgaaccccagggtgtatctttgaagaaaatctcctcag  agtctgcaagaaactacattcagtttgaccagatgccgaagatgaa  cttgcaaa</p> <p><b>(SEQ ID NO: 171)</b></p>

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays** amended as follows:

**TABLE 3 50-mer target sequence for canine arrays**

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctcctcagcaggggcccaggtacaat aaaccagtttggtgctcc (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaagcctgacatcc cctggtcaggtggtgagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctctgtgtgtgtctctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactcttaactctggg aaatgtacaagggatagt (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:

Table 6				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTGAATACTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGCCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC (SEQ ID NO: 179)

C65	Super-oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA  <u>(SEQ ID NO: 180)</u>	TCTCC CAGTT GATTA CATTC CAAA  <u>(SEQ ID NO: 181)</u>	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAAGATTGCTGCT TGTTTTAACCAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGGCC <u>(SEQ ID NO: 182)</u>
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A  <u>(SEQ ID NO: 183)</u>	TGGCA GCCAA ATTCT CATTC  <u>(SEQ ID NO: 184)</u>	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCCCCCGAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACACAGCGAGTCCTGGAGGACA TCCCCCTTGAATTTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAAATCCTCAATTACTGCAGCAAATT AGCCAGCACCAGGAGCATTTTATTAGATGTT AAATGAACCAAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCCTGAAGG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGGCC <u>(SEQ ID NO: 185)</u>
C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C  <u>(SEQ ID NO: 186)</u>	AGTGT CCCAT ATCCG CAATT TT  <u>(SEQ ID NO: 187)</u>	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAACTTGGAAA TGGAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAAGTTCAACTAACTTTGCACTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTGTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC <u>(SEQ ID NO: 188)</u>

C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT  (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG  (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Gluta- thione S- trans- ferase alpha subunit	CAGAGA AGCCCA AGCTCC AC  (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCC  (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATAACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR- cadherin	GTCCGTG GCAGAG TCCCTCA GCTCTAT  (SEQ ID NO: 192)	CACCG TGATG CCACA TAGCT ATCTT CG  (SEQ ID NO: 196)	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTTT GTAGGACACAATCATTTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)

C71	N-cadherin	GGAGCC TGATGCC ATCAAG CCTG  (SEQ ID NO: 198)	GGTTT GCAGC CTATG CCAAA GCC  (SEQ ID NO: 199)	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGA GGTGATGACTGAACTTCAGGGTGAACCTTGGTC TTTTGGACAAGTACAAACAATTTCAACTGATAT TCCCAAAAAGCATTGAGAAGCTAGGCTTTAAC TTTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC (SEQ ID NO: 200)
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG  (SEQ ID NO: 201)	GGGTG GCCCC TCAAT TCTTC AGGT  (SEQ ID NO: 202)	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTCGGTTGTTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTTAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCCTGAAATTCTTTCAGGCGCCAT ATAAGCATTGTTCACACATACGTCTTGCTAT AGAATTCACCAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCCTCTTGTTGTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAACTCCACAAGTAGGTAAGGCCTTTA ACAAGTCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTTCTATATACATCCAAAGATCCC CCATCCATGA (SEQ ID NO: 203)
C73	Glucose transporter	GCAGCA GCCTGTG TATGCCA CC  (SEQ ID NO: 204)	AAGCC GGAA GCGAT CTCAT CGAA  (SEQ ID NO: 205)	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCACAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCCTTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCATGGTCATG AGCACGGCACAGCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACAGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC (SEQ ID NO: 206)
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT	GCTCA GCCCC TTTGA TGGGT AGC	CGCCGATGAGTACGACCAGCCTTGGGAGTGGA ACCGGGTCACCATCCCAGCTCTGGCAGCCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAGC

		<u>(SEQ ID NO: 207)</u>	<u>(SEQ ID NO: 208)</u>	ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCAGAAAGTCA TCCACTACTATACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC <u>(SEQ ID NO: 209)</u>
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC  <u>(SEQ ID NO: 210)</u>	CATAT CGCGG ATGAG AGTTT CGATG G  <u>(SEQ ID NO: 211)</u>	TGCAGATCACCCGACCAGGTGTCCCTGCTTCG CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCCGAGGCCTACACGCCTCA CCCATGTCCGCCGACCGAGTGGTCGCCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTTCGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG  <u>(SEQ ID NO: 212)</u>

Please substitute **Table 7** with **Table 7** amended as follows:

<b>Table 7</b>			
<b>Band #</b>	<b>Genbank Gene Name</b>	<b>Accession</b>	<b>Sequence</b>
CTP1D	No significant match		GACTGAGACCATTTATTCNAG ACACGCAGCTGACCAAGGAGT GAGGGAGGGACCAGGTGTGC AAGCTAATAAATAGAGGAGGG GGAGACTTCCTGGAGCTGTAG CCATTCAGTCTTCATTCTTCTC AGGCATGAAGGCATCTCTTTT CTGACCAAAGCTT ( <b>SEQ ID NO: 213</b> )
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAG GTGTAAGAGAAAGGCCCTTC TTCCCTTACTGGGACAAATCT AGAAATCTTACACAGATGTGC AAATAAAGCTCGCGTGGTGT C ( <b>SEQ ID NO: 214</b> )
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGT CTGGAAATAAATACAAATATCT GATTAAGAACTTCTCTGGAA AGACTTGTACACAACAGTTTTC CTGTCTCGATTAGCCACTCC TGCCCTGACCAAAGCTT ( <b>SEQ ID NO: 215</b> )
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT ( <b>SEQ ID NO: 216</b> )
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACT AAGAAGTGTGTTATTGAGAAG GTTATCACTGTGGACAACTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT ( <b>SEQ ID NO: 217</b> )



CTP8A	No significant match		AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTCGAGATTGAGCA GATAATTTCTTTTGAAGGTGAT AGTTTCCTAAATTGGATAAAAC CGTGGCTGCCATTATATTCAC AGAAAATAAAATGAAAACCTTCA GTTAATTGTGGATTG ( <b>SEQ ID NO: 218</b> )
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTA TAACTAGTTTCACAGGCTAC AAGGAAGTATTTAGGACTATG TACAGCCTGACGGGAAACAG GCAGGGAGCTGAGGAGGGCC AAGATGAGTCTAGGGCCTTGG TGGGCGCATTCCCGGGGGAG GGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCA AGAACAACGGCATAACAAACA AACACGTCTGTGGCAATCAAG CTT ( <b>SEQ ID NO: 219</b> )
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAA TTTAGGGTTAAGGGATAGGA GGAGTAGGGGCAGTAGGTGC AAGGTCATTAGGGCATTCTTCT CGTGTGAATGATGGTTTGATA TTTTTGATATGGTGGGAATATT TACCACGTTGTGTGGTGATTA ATATATAAAGTGAGTATAGGG CGGTAAAAGCTT ( <b>SEQ ID NO: 220</b> )
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCA CCTGCTGTGTACCCAGCACTG CGGGAGGGGCTGTGAGAGAC CCAGGGCAGTACAGGACTTGT TCTTGCCCTTCAGAGGCTTAT AGTCTAGGTGGAAACAGGAGA ACCAGGACACATGAGGAGCC AGGAGAAAACAGTACAGGCCA GGATGTTACAGGAGCTTACAG TGTTTGGGGTCAGACCCACTA AGTGCTTCAGTACCTCTAGGG GCTCAATGTTTCAGGGCCAGAA GAGACAATAACTCACAACTAG CCCATGTAGCATGCCCTATCC ACAGCGTCTACCTCTGCTATC TTAAAACATCTGACTCCTCGTT AAGCTT ( <b>SEQ ID NO: 221</b> )

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTTTTATTATA GTACATGAGCTGGACTGATGG GAAAGGGTAGGTGTATGGGC AACCACTGCCCAGATTAGCAT CGGATGCCCATCCCGATGGC CATGAATGTGCCAAATGTGCC GCCACTCTGCATCATGTTTT CCCGATGCCGCCCATCAGCTC CCGACCCCGCATTCCGATCCT GAGACAGGAAAAGGTGCCGA AGAGCGCCCCGGCCGCCATG CCCACTGCACAACCCATCACA AAGCCCATCTTCACGCGGTAA AAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTATTCT TGTTATACCTTCCCAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCAAGTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTGAG AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAAG CTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGG ATTTATACATGAAAAATGGACA AGGCTTTGCATTAGTTTACTCC ATCACAGCACAGTCTACATTTA ATGATTTACAAGATCTGAGAG AGCAGATTCTTCGAGTTAAAG ACACTGATGATGTAAGCTGAC TTCCTAATAAATATATTTTACTT G (SEQ ID NO: 225)

CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCA TCAGGGCTGCCAAGGAAGCA AAAAAGGCTAAACAAGCATCT AAAAAGACAGCAATGGCTGCT GCTAAGGCTCCCACAAAGGCA GCACATAAGCAAAAGATTGTG AAGCCTGTGAAGGTTTCCGCA CCCCGAGTTGGTGAAAAACGC TAAGTTTTAGTGGATCAGATTT TTAAATAAACATCTGACTCTAA CT ( <b>SEQ ID NO: 226</b> )
CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTT ATTTGACAATCAGCGATTAGTT CTCATCCACATTAACAGTCTGT AGATTTTTGAAAGTGGTGACA GGTACGTAGGTAACCAGCGTG TAGAGCTTGTTTGGTGAATCTT CATCCTCGTTAAGCTT ( <b>SEQ ID NO: 227</b> )
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGA CCTCAAGGGTGATAGTTTTGC CCGTCAGGGTCTTCACAAAGA TCTGCATCTCTGCGTCTGCTG GAGCGAACTCGCAAGGCCGC CGCCACCAAACCGCTCGCCC ACCTCGTTAAGCTT ( <b>SEQ ID NO: 228</b> )
CTP25D	No significant match		AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGC ATACATAAGTAGATACTCAGAA ATATCTGTTGGATTGTGTTGAT TTAATTATTTTTGTGTTGCTTC TTTTAAAGATGAGCACTTTCTA TTAGATATTTTTTGTATCAAAA AAAAGATATTTTTTGTATCATA CAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTTCCTGGTT GG ( <b>SEQ ID NO: 229</b> )
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAG AGGCAGAGACACAGGCAGAG AGAGAAGCAGGCTCCATGCA GGGAGCCTGACGAGGGACTC GATCCCAAGACTCCAAGATCG TACCCTGGGCCAAAGGCAGG AGCTTAACCGCTGAGCCACCC AGGTGTCCCAACTGTCAGGGT TTTAAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGT CATATTCATAAACATAATACGT TGAGAAGCTT ( <b>SEQ ID NO: 230</b> )

CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGT GTACAGTTTTTGTAAAGGTTTTA ATTTTACAATCATTCTGAATAG TTATGGTCAAGTACAAATTATG GTATCTATTACTTTTTAAATGG TTTTAATTTGTATATCTTTTGT CATGTAACATCTTAGTTATTT GGCTAATTTTAAGTGGTTTTGT TAAAGTATTAATGATGCCACCT GTCAGCACATAAGAGTAAGA ACTAATAAATGGATTTGG ( <u>SEQ ID NO: 231</u> )
CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAG AGAAAACCTTCTAAATTGCCAG ATATGTTAAAAGACCATTATCC ATGTGTGCTTCACTGGAGCA GTTAACAGAGTTGGGAGGTGA AACTGATGTTTTTGTATGCCGT CCTAACACAGCCCTATGCCCG ATGTAACAGAGACTGGAACA GCACAAGAGAAATAAAGCAAC AATCAGTAATGGG ( <u>SEQ ID NO: 232</u> )
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAAT AGGAATGAGTAATTTGGGCTT TGAAATCTCTCCAGAAGACA AACTACTTCGATGGGAAAAAG CTTTGACATTTTGTGTTTTATT TGTAAGGGGGTTATTGGATA CAGAGGAGCCTGGTCTCATAC ATTTTCATCTTCAGTCTGAAAA GATCTGTAATTCTGTAGACCC TGAAGCGGGGGAACTTTTCTT TCTGCCATCTCCCTTTGCTTTC ATATGAACACCTCTTCTGTACC AATCATTTGGAAAAGAAGTGA GCATATCTCTTGTAAAAAGT TTTGCTTGNCTGGTTAGCATT CCTTTTGAGCTCAACATATATG GAACAATAAATGTCATTTAATG CTGNGNGCTATTTTGAATTCC TCATCAGGTTTTAGAAGTGGG GTCAAGAACAACCTTAAAAGCTC ATTGGACTTTGAAATTATNCCA GCCGCCNTTGACCATTATCTG GCCCANCAAAGCAGGTAAAT TATGGCNCNGCAAATTTGCT TTTTTTTTTAATAGNNGGANGN NTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC ( <u>SEQ ID NO: 233</u> )

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGA CTTACCCCTCCCAGATCCTGA ATGTCCTTTTGGAGTTTTTCAG ATACGGTGACAGAAGGTAAGT CAATGTAAAATATTTTTCCCA GAGTGGCTTATATTTGTATTTT TCTGGTTTGTTATCAGTTTTCA TAGATTTTCATAGATCTGTTTTT TTCATTTTTGACTTGGATTCCA CCTGTTGTTTAAAAAAGTAGA ATCAGATCATGATTTATGTGGA CAGAAAATTTCTCTTTTAAAAA TACTTTTTATACAGTCATCATT TCATAGAGGGGGAAAAAATCT TTATAATACCACCAATTAACA CTCAATAGCATTTTACTGTATT TCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGT TTAACAGATCCCATACTGTAA AATAATCATCGTTCACAGCCTA CAGTCGAAGCTT <b>(SEQ ID NO: 234)</b>
CTP31A	No significant match		GGGGCAGATAAAAACACTTAA TGTAATTTTACCCTCTCAGAA AAATTTCCAGTATGCTATACG GTATCACTAACTATAGTCACTA TAGTATACAGTAGATCCCTAG GATTTATTCATGATGTACAGTC GAAGCTT <b>(SEQ ID NO: 235)</b>
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTAC GAAAAGCATCAAAGCATCTTT ATGGTCAGCTTAAATTTGGTA CACTAGATTGTACAATTCATGA GGGACTCTGTAACATGTATAA CATTCAAGGCTTATCCAACAATA GTGGTGTTCAACCAGTCCAAC GTTTCATGAATACGAAGGCCAT CACTCTGCTGAACAGATCTTG GAATTCATAGAGGACCTTATG AATCCTTCAGTGATCTCCCTG ACACCCACCACTTTCAATGAA CTGGTTAAACAGAGAAAACAT GACCAAGTCTGGATGGTTGAT TTCTATTCTCCATGGTGTATC CATGTCAAGTCCTAATGCCAG AATGGAAAAGAATGGCCCGGA CATTAACTGGACTGATCAATG TGGGCAGCGTAGACTGCCAA CAGTATCATTCTTTTTGTGCCC AAGAAAATGTTTCGGAGATCCC TGAGATAAGAATTTACCCCC <b>(SEQ ID NO: 236)</b>

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCG TTCTTGCCGCGTCTGTTCAAA CCGGCACGGTCTGATCCCGG AAATACGGCCTCAACATGTGC CGGCCAGTGTTCGTCAGTA CGCCAAGGATATAGGCTTCAT TAAGTTGGATTAAGTGAACCTC CTTGAATGGGTCATCCAAGAT ACCTACCTTAACTGCAGATGT CCAAGATACCTACTTTGATGC CAACTCATTGTATATAAAATAA AAATACTCCAATTATGAGTGTT TTAATGTG <b>(SEQ ID NO: 237)</b>
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACAA ATTTCCAATAATTTGGCATTTA TCTTTCACAAAATGTCTCCCAA ATTCTAAGCAAAGTATGCAAAT TGGAGATTAAGTCTAAACAGG CATAATTATCTTCTTATCCAGT TTTTCTGAAGAGACTGAAGAG TTCAGGTCTGACCAAAGCTT <b>(SEQ ID NO: 238)</b>
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTTC ATTACTGTCAAAGGCATCAAC CAGATTTGGGAATTTGTTAAAA GGTTAAAAATTCATACAAAACC TGCTGTAAATTAAGACAAAGG TAGATTAAATGCATCATTATC TGTCTCTTAAATAAAGTAATGC TTTCCATAAAAAGCAAAGGTG GGCTTTTGCCTTGATGCTGAC CAAAGCTT <b>(SEQ ID NO: 239)</b>
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTC AAGGATCAGTT CCGTGGCACCCTCTGACCACA GACTGGGAGCAACACGCATCT GTGGCATT TAAAAATGGAATT GGCAACTTCATGACATTGGAA TGCATATCACACTTACAGTGT CTAGACTTTCCTATGTGTGCT CAGTTACAAGTAGTGAAGCAA AAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGC CATAAATGTGAAAAGCAATACT CTGAAATAAAGATTTTTGTTTT TTGCCCTAGCCTACTAAGCTT <b>(SEQ ID NO: 240)</b>

CTP47G	No significant match		AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTAC CTTCTAAAAAGGCTGTATTAAT TACTTTTACCAGTAGTATTAT GAGAGTGCCCATGTCCCTTAG CCTTTTAAAATTCACATGAGC AATCTTTAAATCATGTACTAAA TCTTATAGGCAAAGAATAGGG CCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAA GTTCACTCACTCCCATCATCT CTAGATTGGAGATTTCCAAATT TATGGCCTTTCCCTAACTTTGAA GTCCTTATTTCTAACTGCCTAC TAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTT GCTATGTTGCCAGGCTGGTCT TGAACCTTCTGGGATCAAGCAA TCTGCCTGCCTTGGCCTCCTA AAGTGCTGGGATTACAGGTGT GAGTCACTGTGCCTGGCCTCA TATAGTCACTATAACAGCCTAC TAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAAAAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTTACCTTCTTT GTAATTTGTGTTTTTACAGATT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCAA GTTTTTTGCAGATTTACAGAA TTTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAAC ACAAATTACAAAGAAGATAAAA ACAATTCATGACCTCAGCACA TTCAAAAGTATGATTTTAAATG GTTAATGTTCCACATTCAATTT CTACTTCTCTATTATTGCCTAC TAAGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAG GCCTCGGCTTTTCAAACCTGCA GTTGATCAAACCTGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTTAATCGTTTTC TCCTTAAATGGGTACTTTCTT ACTAGGAAAAAAAAAATGTTC CACCTCTGGAATTAACGTTGA GAAGCTT ( <b>SEQ ID NO: 246</b> )
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGT CCAAATAGCATAACCTAATTG CATTCAAACCATTTTCAAATC CATCTTTAAACTAGTCAGAAAA CAGGTTATTATTTTTTAAATC ACTTAACACTGAACAGATAAG ACCTCTTAAAAGGCAGCTGAC TATATCATGTCACCATCATAGC CAATACAACATTTTGGCATA TTCCTAAAAACCTTTTCGCATA CACTGATCATGCTACTTATCA GCACTTTTAAACATCCTGACCA AAGCTT ( <b>SEQ ID NO: 247</b> )
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTCTGGG GGGAACAGCTACTAGATGAAT TTAAGGGTTTTATGCACCTTAT AGAACTTATAGCAAAAATAGTT TTAGTTGATTTTATTATAAATA ACGTTTTCAAGAACCTGTGCA AAACTGTCAATAATTTCTAAA GCACAATTGATCAGAAAAATC CATGATTGTTTCAGCCTTCACA CCCTTCTTCATGTAAGAACAC CCTTCTGTACATCTCACAGTTA CTTATTAGGTTGAAAGGTATAT GGTGAATGGTCATTAGACGTC TCGACAGCCACCTGCTGCTGA CCAAAGCTT ( <b>SEQ ID NO: 248</b> )
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCCAGTGCAAG CCAGGAACATTGCAGAAATGCT AAATTTATCTGCTAGGTGATGA TATTGAACGATCTAGACAATAA TTTCACCTTACTTAAATAACAA TGAACAGAATTCCTTTTTTCC ACTCTGAGTGGATATTTCTGT CATCTCTGACCAAAGCTT ( <b>SEQ ID NO: 249</b> )



CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAAACATTTATT TGGCTGGGTCATGAGTAATTT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTCTACTTTGGATCTATC TGTCTTGGAAATATCATTTTATT GGGTGTAGAAGTGAGTTATGC ACTCACCGCCTTCCATTCTGG T <b>(SEQ ID NO: 250)</b>
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGAC TTGTAAGGCACTGAAGCTAAG GCTAACAGCAACAGAGTCCTT TATGAAAATAATTTCAGAACCA CAACGCATTCTCTGATGGTGC ATTCCCCTGGGACAGTCGAAG CTT <b>(SEQ ID NO: 251)</b>
CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTTAATTTCAAATATTCATT AACCTCTTGATCAGATTTAAG GCAGAGAAAAGATACACGCCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT <b>(SEQ ID NO: 252)</b>

CTP65A	Pig mRNA for endoplasmic-reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript )	X16951	CCATTTAAATGTTTTATTTTC CTTTTAACTAGATTGTGAAG TGCCACTGAAATAGGCAATGT TGGCAAACAATGTCTGTTAC AATAAAATACATTAGACATTTA AATAAATAACCTTAAAACTAC ATGGGGGGACATGAACCCAG TCGATTGAATCTGGAACAATG TTTTCTGCACAAGCGAGAACA GGCATACTCTTGTTAAGACT GATGTAAACAGAACCATCGGA ACCCTACAGTCGAAGCTT (SEQ ID NO: 253)
CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACTTTATTTGC ATATTAATAAAATTGTGCATTC CAATAATTAATAATCATTTGAAC AAAAAATGGCACTCTGATTAA ACTGCATTTTAACAGCCTGCA AGATACCTTGGGCCAGCTTGG TTTTTACTCTAGATCTCACTG TCCTCCCACCCAGCTTCTTCC TTCACCAACATGCAAGTTCTTT TCCTTCCCTGCCAGCCAGCCA GACAGGCAGATGGGAAAGGC AGGCGCCTTCGTTGTGAGTAG TTCTCCATTCTTTGATGTGAAA AGGGGCAGCACAGTCATTTAA ACTCGATCCAACCGCTTTGCA TCTTACAAAGTTAAACAGCTAA AAGAAGTAAATAAGAAGGCA ATGCTTGTGGAATGTACAGTG CATATTGGCGGCACGCCTC ATTACGATTTCGGCTACTAAGC TT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACCTTTTGTTTTAAT GGGTCTCAAAATTCTGTGACA GATTTTTGGTCAAGTTGTTTCC ATTAAAAAGTACTGATTTTAAA AACTAATAACTTAAACTGCCA CACACGCACAAAAA AAAAACAAATGGTCCACAAAA CATTCTCCTTTCCTTCTGAAGG TTTTACGATGCATTGTTATCAT TAGCCAGTCTTTTACTATTTAA CTTAAATGGCCAATTGACACA AACAGTTCTGAGACCGTTCTT CCACCACTGATTAAGACTGGG GTGGCAGGTATTAGGGATAAT ATTCATTTAGCCTACTAAGCTT (SEQ ID NO: 255)

CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTAA CACCTTGTGGCCTGAACTCTC TCCCATCCTCCACTGTACAGT GATATGACTGAAACCTCATTTA ACCTTTTAGAACTACCAGGAG GAGGTTCCCAAGGATCCCAG G ( <u>SEQ ID NO: 256</u> )
CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAA CTCTTAATGCACGGCACAAC GCCCAGATGTGCAGGAAAGAA AGAATGGCAAAGTAAATGCC CATATGAGTGCCATTGGGATG CCAAAGAGGGCAGACAGCAA GCGGTAAAACCAGTATTTTGT CACAGTGAAGGTGGTGAAGCT GGCCTTCAGATGCCATCAAA ACTGTGTGTTCTTCTGGTTCT GCAATCACATCTTCAAAATCAA TCTTGACCACGTCGTCGTTGA GAAGCTT ( <u>SEQ ID NO: 257</u> )
CTP72B	No significant match		CCATTTTGTCTTAAAGAGCA TCTTAAGTGAGAGATCATGAC AATCTTTGGCCACTCCAGGTT TTCTCATCTACTACATGATCTG TTCCCAACAATAAGCCATTGA AATTAAAGGTCTCCAGAAGTTT TATCTGGGGTCTGTGATTGAA AAGAAGGAAAATGAGATGAGA GACTGCCTACTAAGCTT ( <u>SEQ ID NO: 258</u> )
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTTT TTTTATAGACATTACACACAA CACATATATAGTGACACAAAC ACAAGATTCAACACTTGTAAG ATTTTTTATTTGCCAGTTTCTT AATTGGATTACTGGCATCAGG GTGGAAACTTTAGAGGAAGAG AGCCAGGTAGCATGCATTTCT AGGGCCTACTAAGCTT ( <u>SEQ ID NO: 259</u> )

CTP73B	No significant match	CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTACTCA AATATTATACTCAAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGC TGCCTACTAAGCTT ( <b><u>SEQ ID NO: 260</u></b> )
CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAAATTTTTT GAAAACCTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAAATAAATCACCATTTTTTT A ( <b><u>SEQ ID NO: 261</u></b> )
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAAG TGATTCATTTGTAAATTATCAT GGTTTTCTGCATTAATGGC CATTTCTGG ( <b><u>SEQ ID NO: 262</u></b> )
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCCTAAAGCGAC GANTTTTNTGGAAGGCTTTG GTCCAAGGCCATTTTTGCCGG CTATAAACGGGGTCTCCGGAA CCAAAGGGAGCACACAGCTCT TCTTAAATGAAGGTGTTTAC GCCCCGAGATGAAACAGAATTC TATTTGGGCAAGAGATGCGCT TATGTATATAAAGCAAAAGAAC AACACAGTCACTCCTGGCGGC AAACCAAACAAAACCAGNAGT CATCTGGGGAAAAGTAACTCT GGGCCCATGGAAACAAGTGG CATGNGTTCCGTGCCAAATTC CGAAGCAATNTTCCTGCTAAT GCCATTGGACACAGAATCCGA GTGATGCTGTACCCCTCANAG GATTTAAACTAACGAANAAN CAATAAATAAATGTGGATTTC GNTCTTNGG ( <b><u>SEQ ID NO: 263</u></b> )

CTP77D	No significant match		CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTTCGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACTCTTCCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAA CTGGTAAACCCCGATTCCGTC CGATCGC ( <b>SEQ ID NO: 264</b> )
CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGAC ACAGGAAATTCTTTTGTTAATG TTACCTGGCTTTTTGGTGGAG TTGGCTTTGCTGCAGCAATAT TCAGATTGAAAAAATGGGTTT GGGTTCACTGAGTTTAAAGGG ATGATGATAAAAAGGAGGTTT TTCTTCCTCTTCATCCCGAAAC ATGAGGCTTATTCATATTACA TCATCATCTTCTTTACTCTGTG CGATCTGTTTGCATTTCTCAAG TTAGTTCTTCTATAGTNGCTCC TCCTGATTTTTAGCAACTTTC TCTTCTATTGTGGGTGGAGGT GCACGCTTTTAGGTTTGGCGG GTAAAAGCTT ( <b>SEQ ID NO: 265</b> )
CTP79B	No significant match		CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTTCA AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAG CTT ( <b>SEQ ID NO: 266</b> )
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATA TTCTTTAAAGGAACCTTAACAA AACTTTACACTTAATAATGTAA ATCTCACCATGTTCTAGTCAA AAATTTACTACACAGACTCAGT AGCGGTAAAGCTT ( <b>SEQ ID NO: 267</b> )

CTP81A	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGGCC ATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)
CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAG GTCATGATTCTGAGATGATTG GAGACCTTCAAGCTCGAATTA CATCCTTACAAGAGGAGGTGA AGCATCTCAAACATAATCTTGA AAGAGTGGAGGGAGAAAGGA AAGAAGCTCAGGACTTGCTTA ATCACTCGGAAAAGGAAAAGA ATAATTTAGAGATAGATTTAAA CTATAAGCTTAAATCATTACAA CAACGGCTAGAACAAGAGGTG AATGAACATAAAGTAACCAAA GCTCGTTTAACTGACAAACAT CAATCTATTGAAGAAGCAAAG TCTGTTGCAATGTGTG (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGA AGCAGAAGGAGAACAAAGCCA GGAAAACCCCGAAAACGCAAG AAGCTTGACAGTGAGGAGGAA TTTGGCTCTGAGCGAGATGAG TACCGGGAGAAAGTCAGAGAGT GGAGGCAGCGAATATGGAAGT GGACCAGGTCGGAAACGGAG GCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAA AATTATGAGCAGAGAAAACCTC AAGGGCTCAGAAGAGACCAG GGATCTGGAAGAAAAATTGAA AAGGAACCTTAGAAGAAAACAA GATCTCAAAGACAGAATTAGA TTGGTTCCTTGAAGACTTGGA AAAGGAAATCAAGAAATGGCA ACAGGAG (SEQ ID NO: 271)

CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGAT TCACCAAACAAGCTCTACACG CTGGTTACCTACGTACCTGTC ACCACTCTCAAAAATCTACAG ACTGTTAATGTGGATGAGAAC TAATCGCTGATTGTCAAATAAA GGTATAAACTGCTCCATG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCT GTGGGCTGGGGTCTCAAAC GTGTTGCCCACTACTCAACTC TGCCATTGTAATGTGAAAGTA GTCACAGACAAAATATAAAGA AATGAGTGTGACTGTGTTCCA ATAAACTTTATTTACAAAAGC ATTCAGTGGGCTGGATTTGGC TTTTGGGCCATAATTAAATCCC CTCTGGTAAAATAATCACTATT Ttagctggatcatgagtagct GGAAGCTT (SEQ ID NO: 273)
CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATA TTTATTAGATAAATATTAGAGG TTGTCACATCATCTAACTACAT ACAGCTTTGCAAGACTAGAAA TCACAATTAGTTTTTTGACCAG TTTAAAGTATGAAATGATTGCA TTGTACATACGATGTACAAAG ACGATGATGGTTTCTGTGGGA GTTACTTCAGGCTGCACTGGT GGGTGTGTTTATGTGTGTACG TGGAAGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGAT TGTTTAATCCAAGTGGGAGGG TAAACGGGAGACTCTTTGGCC TGTCAGTGACAAAATGGTTTG TAAAAAAGAAAAATAAATACG ATATACAAGTAAGTATAACTAG CACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGGAAGAGCCTTGTT TTGTCATATTACCAGAGTTGGT TTTCTGGTTCCTTCTCATTTGG GTAGGCTCTGTCAGAGAGAAG GTCTAGGGCTGAAGGCTGTTG TTCAGATTCTTTTGTCCCAAGT GGTGTTCCTTGATGTAGCAC TCAAGCTT (SEQ ID NO: 276)

CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGA TGTACAACTTAAAAATGTGAAG TTTGTAGCTTTAACTTTTTGTA ATAAAAACTAATAACACTGGCT TAAGTGCTGACTTGAAATGCT ATTTTATAAAGTTTGGATGTAA ATAATCAATCGAGGTCAGCAG TTTGTATATGTAGGAGACATA GCTTCCTCCCTGCACCCCCCA TTTTTTTAAAATTTGAGGTGCT TCCTGTGTGTTTTTATGTTAGA ATTGTTCTCCCTCCTTCCTACA CGTGGTCACCTTTGTTTTAAAT AACTGTCCTTTGG ( <b><u>SEQ ID NO: 277</u></b> )
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTG TGCTTTTTCTGTGGGACCATT CCATTCAGGAGCAAAGAGCAC CATGATTCCAATCTTGTGTGT GTTTACTAACCCTTCCCTGAG GTTTGTGTATGTTGGATATTGT GGTGTTTTAGATCACTGAGTG TACAGAAGAGAGAAATTCAAA CAAAATATTGCTGTTCTTCAGT TTTGTGTGGAATTTGAAATT ACTCAAATTTAAATAAATTAC TGGACTGTGG ( <b><u>SEQ ID NO: 278</u></b> )
CTP99A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT ( <b><u>SEQ ID NO: 279</u></b> )



CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCTTCG CAGAGGTGCTCGGCGGATGG GTGTGGTCTTCTTGGGTGTCT CCTCTTCTGTCATCTATGCCG AAGCTT <b>(SEQ ID NO: 280)</b>
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGT TTGATTTTAAGTTTTATATAGT TCTTAGTTTTGAAGAAATCCTT CAAGAACAGTTTCTCTAAAGA GCATGTTTTAATTAATGCTAA TTAATTACCTTCTTAGTTTTTC CAATTTAGTAGGCCACTTTCAA TGTCTATTAAAGTGAAATAAAC CTTCTGAACCTTAAACATTTTTA AATCGATTAAAAATTGTGTCAA AAT <b>(SEQ ID NO: 281)</b>
CTP104I	No significant match		AAGCTTTTTTTTTTCAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTCC ATATGTAGTATGTACAGTGAG ACCACTTTTTAAAAAGCAATGA CTTAGGCAAACCAACCCTAAT GGTTTGTTAGACCATTTCCCT GTTTTTAATTAAAAATCATAGG GTTGTGCTTCTGTATAAAGTTT GTACATTTCACAATGTAAATA CTGACATT <b>(SEQ ID NO: 282)</b>

CTP109P	No significant match	<p>           ATGCAACCACACGGAATTTAT            TGAACATTTTTCACAAGTGATTT            CATTAAAGGAAGGCTTTTTTCG            TGCCTATATTGGTTACCATCAC            TTTTGCCCCTATCACAATCTCA            TGGTGTAGTCCTTGCATGTAG            CAGGAACTCAACAAATGTCTG            CTAAATTGACAGATGGAGCCC            CAGACGACCTAAACTTTGCAC            TTTAGAAGCACTTACTTCATCC            TGAGCTATTATGAATAAGGAA            CTCAAGTGACTGTTAAAAGCA            TTCTACTGATGAGTTGGTAAT            GTTCTAAAGCAACATATCTCAA            AGGAAAGGATATTGAGTTTGT            CTCCACCATAAAATCCTATTTT            TAAACAAAGGTACTACTTAAAA            ATGGTCTTCCAAAGGCCTCAG            CAGAGGTTCTAAAGAGATGTG            ACAATATGCCGAAGCTT (<b><u>SEQ ID NO: 283</u></b>)         </p>
CTP110A	No significant match	<p>           AACATATAAAAACATTTATTCA            CTAGGAATAATTGTGGCAGAC            ACAATCCAGTGAAAGCAGCTC            AATCCTGCTCAGTTAGGCTAG            TTGAAGAACCATACTTTAAAAA            AAGAAAGGAAGACAGGCAAAC            AAGTGTTTTACAGGAGCAACA            GACTTCAAGGTCACCCCCACA            AGACACCCTGCACAGCAGGG            ACGGGGACAGGGAGGATGAC            CTCTTAGGGCCTGTGCCTTCG            CAGAGGTGCTCGGCGGATGG            GTGTGGTCTTCTTGGGTGTCT            CCTCTTCTGTCATCTATGCCG            AAGCTT (<b><u>SEQ ID NO: 284</u></b>)         </p>
CTP111A	No significant match	<p>           AAGCTTCGGCATAAACGATCC            ATTCTCCTCGGCCTCCCAAAG            TGCTAAGGTTCCAGGCGTGAA            CCACCATGCCCAGCCTGTTCT            TTTTTTATCTCTAGGTGGTGC            TCTCCAGCTGTAGTAGAAATA            GCATTTGTATTGGATCTATTTT            TTAAATAGGGACTAAATACAG            ACCATTTTGTAGAGTGAAATG            CCAACAAGAACGAGATTTTT            CTCTTGGCT (<b><u>SEQ ID NO: 285</u></b>)         </p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTTAATAGAAA CAACAAAAGATCAAAAGTGAT GCCTTGCTACTACTGTACATAT CAGTTGGCCTGCCCCATAGCA CACCTCAGACCATCCTCTCCA GAGGAAGAAAGGCTGGCCTC CCCAACCCCTGCAGGAAAGG GCGGTCTTGTCCCATACCACA TACCACATCTGCAGAGTCTAA AGTCTTGTTATAAGCATGACAA TAGTACAAAAAAGATTCTGTT TTCATGGATCCCCCACTACAG CCCGGACCTAAATGGCGAG GCGCTCACTTCTGCTTAGAGA AATATTCTTTGCTCTTCTGGAC ATCAGGCTTGATGGTATCACT GCCAGGCTTCCAGCCAGCTG GGCACACTTCCCCATGCTTGT CAGTAAACTGGAAGGCCTGAA CCAGTCGCAGTGTCTCATCCA CAGAGCGACCAACAGGAAGG TCGTTTACAGTGATATGCCGA AGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTAT TTAAAAATCTGATCCACTAAAA CTTAGCGTTTTCCACCAACTC GGGGTGCGGAAACCTTCACA GGCTTCACAATCTTTTGCTTAG GTGCTGCCTTTGTGGGAGCCT TAGCAGCAGCCATTGCTGTCT TTTTAGATGCTTGCTTAGCCTT TTTTGCTTCCTTGGCAGCCCT GATGGCCTGTTCTCGTTGAGC CTTCCTAACTTCAGGTTTCTGA TTCCTCTTAGCCATTATATCAG CAAGAGATGCCCCAGTGATGG CCCTCTGGAATTTGACTGCAC GGCGGGTTCTTTTCTTCTGAA TTTCTTCCGACTGTCCCTTTT GTGCTTTCTTCTGTAGAGGAC AGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)

CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGA CTAAGGGAGAGCCAAAGTTGG CAATCCCATTAACTTTACAAC TCCTAAATTATGGCAATCACA TGCCTGCCTGAATGAATATAG CAAGTCCTAAAGGATGTCTTC TGTGAGGGCAGATGGAAGTTT ACTTCAACTCAACTCCATCTAC TATTTAAGGGAAGGATAAGTC AAAGTAAGAGTTAATTATTTCA ACATGGTTTGTTCATTTCATGA TTTAACCACACTATGGACCCC AGAAGCAGTTAGGTAAAAGGG ATTTTCTAGAAGCTTAATTATG CCGAAGCTT <b>(SEQ ID NO: 288)</b>
CTP116A	No significant match		AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAAA ACACTTCATTGTTGAGAAATCA CTTACAGAATGGTGGCTATCA AACAAATAATTATAAATTTTTAA AGCACAAGTCACATGTTTTGT AACTCCTGTGTGAATTTATTTT AGCTGTGACATTTAATTGAAAA CATCAGATATGTTTTGAAAA GTCTTAATTTGAGAACAACCTGA AGGAAGTTAATCCAGAATCTA TATGTAGTTAGCTATTAATGAT GATGCTTTATTGACAGTATATT GCTAATATATTTCTTCATGAAA TCTGAAGTTAAATAGTTTCGTT GTGGAATAGTGTCACTGTAAC ATTTCCCTTACGAAGTTCAATA AACCAGCTTTGCCATAAAAAA AAAAGCTT <b>(SEQ ID NO: 289)</b>
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTTAAGCTGA TGTCTTATGACTTTTTATGAGT CGAAATTGTTTTGATTTAGCA AGTCAAATCTTGTAAGGCC GCGTATTTTTTTAAGATTATA TGAAGTCTGTGCAAAAGCTTT AAAAAGAAATGCCTCTGCCTT GCCTGCAATACATGCAATGTA CGTTAACTTCGTCTCTGTCCT CAGACACTGTCCGTATTTACTT CCTTGTTTTCTTTTCTTAAT <b>(SEQ ID NO: 290)</b>

CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAAAAATAGTGTTT TATTAAC TACCACACTGTTATA ATACACTTTAAACGTACAATAA GGTAGCCTTTAAATTTGAGGT GGTCTTAAGAATAACAAATGA ACAGAATTCCAAATTTTGA TAGGTGAACTGCTGTAGTTAT AGGTATACATTTAGGAAAATTG TATAGCTTTTACAAGACCAGC AATGAAACTTTATTTTGTACAT TTTTAAATAATTGAAAATATAA ACAATAATTAATAAATAAAGA AAATACAGCATAATAAAAAACA TACATTTCTCAATTAAATGTAC TGGATACATATAAATTTAAAGG GAAGAAGCAAAAAAGGAAAAT GGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAA AAAAGCTT (SEQ ID NO: 291)
CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCNAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAAC TACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTTCTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT (SEQ ID NO: 292)

CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTTGGGACTG CTTTTGATTAATGCAGTTATCC AATTTAAGTGTTTTACTTTAA CTCAAAGTAAAAAGAAATTCTC ACATGGTAACTACTCTATTTAA ATGGTCCTGGAAACATTAAAC AGCTTTCTGCTGCTTGCTTAAT GGTAATACCTTTGATTTCTTGA TTCTAGGACATAGCTGATTTAT TAGGTAAAGTACTCTGTCAATT TTACCTTCACCCAAGACTGTC ATGTTTAAAATACTTTAGCTGT GGGAGAAATCCTTGCTGTTT TTATTGTGAGAGGAATGGTCA TCCTCAAAGTCTGTTTCTACTA CATAATGTGGACTAATTATTTT TTCTATCACAGTATTAACAAAT GGATTTATTGTAAATACAAAGA AGATATTAATATACTATTCTTA TGTC <b>(SEQ ID NO: 293)</b>
CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCAT TAATAGCTAACTACATATAGAT TCTGGATTAACCTTCCTTCAGTT GTTCTCAAATTAAGACTTTTCC AAAACATATCTGATGTTTTCAA TTAAATGTCACAGCTAAATAA ATTCACACAGGAGTTACAAAA CATGTGACTTGTGCTTTAAAAA TTTATAATTATTTGTTTGATAG CCACCATTCTGTAAGTGATTTT TCAACAATGAAGTGTTTTATAA ATATTTTGGAAAATATCTAAAA CCTCTATCCCCATTCAACTGAT AAGTATGCTCTTTTAAAAAAA AAAGCTT <b>(SEQ ID NO: 294)</b>

CTP126A	No significant match		AAAGAAAGTAATTATGGAACCTA GATTTTTTAACATTGTAAAATAC TAAATGATCCTTCAGTTGTAAG TTGATATATATTTGTAACCTTT GTGAAATTGTATCCTTATGAAA ATACCACTTTTGTGGAAGAGA GAATCCAACCTATGTAATATTTA ATTAAAACAATCCATGTTTACC CTATCCCTGCTCAATTAACA GTGTATATAGGTCTAATAATAG CTCTGGAGCAACTTTTATCAT GAGTCAAATATATTAACACAT TGATGTCTTCTTGGTATATCTG AAAACAAGAGGTAGAAGTCCT GTTGAGAGTCTTTAAATAAAC TATTTTTACAAATGTAAAAAA AAAAGCTT ( <b>SEQ ID NO: 295</b> )
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E- cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCGAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAACACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTTCTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAATTGG GATCATCTAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT ( <b>SEQ ID NO: 296</b> )
CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACA TAGCCAGAGAGGAGGCAAAG AAAATGAAAACAAATAGTCTTC AAAATGAGGAAAAAGAGGAAA ACAAGTGAGGACACTGGTTTT ACCTCCAGGAAACATGAAAAA TAATCCAAATCCATCAACCTTC TTATTAATGTCATTTCTTCCTG AGGAAGGAAGATTGATGTTG TGAAATAACATTCGTTACTGTT GTG ( <b>SEQ ID NO: 297</b> )

CTP133B	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAACGAAAGC CAAGTTTTCATTTAAAAGGAAA CANTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTTCAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT ( <b><u>SEQ ID NO: 298</u></b> )
CTP134A	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAACGAAAGC CAAGTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTTCAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT ( <b><u>SEQ ID NO: 299</u></b> )
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAA ATAACAATTCAATTGCATGTTA AGTAAACCAGTTGTAGCAATA TAAAAATACAGAATTTTGAGAA AATCTGGCAAATTAAACCTGTA TCTAAATGCAGCATATTCTGTG ATACTACGGAATGAAGCTT ( <b><u>SEQ ID NO: 300</u></b> )
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAACT TGGGACTCGATGCCGGGACC CCAGGATCATTACCCGAAGCT T ( <b><u>SEQ ID NO: 301</u></b> )
CTP144B	No significant match		GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAG GGAAACTCCAGCCACAGTTGA GGGAAGGCCACCTGTTGGCT CTGGGGCAGCAGGTCATCCA GTGGGCTTCAGGAGTCACCA GGCCTCTGACCAGTTCCTCCC CACCAAGCAGTTTCAGAGTTG TCCGCCAAGTCTATTTACAC CTCTCGTGTATGCCGAAGCTT ( <b><u>SEQ ID NO: 302</u></b> )



CTP145B	No significant match		GGACTGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT <b>(SEQ ID NO: 303)</b>
CTP148B	Homo sapiens serine- threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT <b>(SEQ ID NO: 304)</b>
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGC CTGTGCCTTCGCAGAGGTGCT CGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGT CATCTATGCCGAAGCTT <b>(SEQ ID NO: 305)</b>

CTP150A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT ( <b>SEQ ID NO: 306</b> )
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAG ATACATACAAGAATAGCCAGA CTACATCAACAAAGTGTCATA TCATGCAGCGGCTTCAAATCC GAAGTGGTGGTTTGATGTGAA GTGGTAGTATAGCTGTCCGAG GAAGCACACGATGAGGAATGT AGAGCCAATAATTACGTGTAA TCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATAC CCCATCGGAGATTGTAAAAGA TGTCTCATAGTATGCCGAAGC TT ( <b>SEQ ID NO: 307</b> )
CTP154A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT ( <b>SEQ ID NO: 308</b> )
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCT AATAACTAAAATACTCTAACTT GGAATAATCGACTCCGACGTC TTTATTTTTCCAAGTTGCCTTT TCTTTAAACACCTTTTTCTGA TTTAATACGGAATAACGGTCTT CTTTTCCACTCGATAACTATGG TGTCTCTTGGGTTACTGCTT AAGAAAAGTTGGTTTGGGCCA TTTCG ( <b>SEQ ID NO: 309</b> )

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTTGAAGATA CAAGTTAGAGTTCAATCAGTA CCAAAGGTAAGGAAAAATTAA CTCTATGTACACAGTCGAGTT TTATCCTGCTTAAAATTGTCAA GTAGAGAAAATTCTGAAAATAT TTATGAAAAAGCTATTCTCATG CTGGCAGCAATGGTTAAAATA AAGATATTTCTTTTATTAATA AGAAAAAGCCTAAAAACAAC TTTAAATAATCAAGTTGCTGTG AAGTGAAAGGGTTTGAAAGTG ATGAAACTGAAGTTAAAAGTTC TCTATATGTGTGTTTTACTTTA AGCAAATTAGACATAGTGAAT AAAATTTGAATTTTCAGACAAA TTATTTGCTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACAC AGAGAGAGAGAGGCAGAGAC ACAGGCAGAGGGAGAAGCAG GCTCCACGCAGGGAGCCCAA TGTGGGACTCGATCTGGGAAC TCCGGGATCAAGCCCTGAGCT GAAGGTAGACACTCAACCGCT GAGCCACCCAGGTGCCCTGA TTTGCTTTTTTAAAGAAGTCTCC CCCTTCC <b>(SEQ ID NO: 310)</b>
CTP164A	No significant match		AAGCTTCGGCATAACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACACGGTTTGGTT ACAGGACTTCTGTGCATTGTA AAACATAAACAGCATGGAAAA GGTTAAATACCTGTGTGCAGA TTGTAAGATCTGGTCCGGACT TGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTT GTATCATAGTCATGCGGTCTT ATGTATGATAAACAGTTGAATA ATTTGTCCTCAGACTCTTTACT ATGCTTTTTTAAAATTAAGAAA AATGTAAATATAGTAAAAATCT TCCTATGCAATTAACCTGG <b>(SEQ ID NO: 311)</b>

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTT TTTCTGTGAACTGAAGTTGGT CAAGGATTGTAGGCAGCAGAA GGCTCACAAAACGGTCAGTTG AGGAACAGTTAGCAGTATCTG CAACATCCTCAAATATTTCTT GAACAACTCTAAGGCTAGAAG AGAACAGTTTTCTGATCTGTC CAGAGGTTGGTTTGACCAACG CAGTAGAGCCACAGTAGGTTT TAAACATTTAGAACGGCTTCC CAGAATGGTGTGGCAGATGG AGACTGTTCAAATATCATCTGA GTGAGCACGTGGCGCAGCTG AGTCACTGAACAGAAGGCAAG AAGTAATTCTAAAACCTTTGAA GAAGAATCAGGATCCTTTCCA TTGAGAAGACCTAATACTTGA CTAAGACATGAAGAAAAGTGC TCATACCTGGTAAGCTT ( <b><u>SEQ ID NO: 312</u></b> )
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAAATTTAAAT GTTTGCAATTAACTGGTTTGT TAAATATC ( <b><u>SEQ ID NO: 313</u></b> )
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTCA GAGACTGCACCTCTTAAATG TTCCTTTTCACATCTGTTTAGT GGATCAAAAGCTT ( <b><u>SEQ ID NO: 314</u></b> )
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCAAATCACAAATC TGATTCAAGAGAAGGAAAAAA ATGATGAAAAACATCTCATCAC ACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAG AAGCTT ( <b><u>SEQ ID NO: 315</u></b> )

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATT AATGTTCCATAATTAACTGTA CACGACCTAGTCTTGGGACAT AGAAGCCAGTGAGGTGAGTTT GGAGCAGTCCCAGGAGCCAG GAGTCGAGTTTTTCATTGGCCT TTTTTTCTTTTTCTTTTTGTC ATTCTGTTTCATCTAAGATTATT TGGATACTTGGCACAATCTGG CTCTGCTGCTAAGCTT ( <b>SEQ ID NO: 316</b> )
CTP202C	No significant match		AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCAC CACTTCAGATAGTAACTAAAGT AAATTTTAAATTTTCATAAGAAT AAAGTAATCCCTGAAAAGAATT CACTTTTTTCCCAGAAGAAGC TTATAATTAAAAAAAAAAGCT T ( <b>SEQ ID NO: 317</b> )
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAG GAAGTAAATACGGACAGTGTC TGAGAACAGAGACGAAGTTAA CGTACATTGCATGTATTGCAG GCAAGGCAGAGGCATTTCTTT TTAAAGCTTTTGCACAGACTTC ATATAATCTTAAAAAAATACG CGGGCCTTTACAAGATTTGAC TTGCTGAAATCAAACAATTTTC CACTCATAAAAAGTCATAAGA CATCAGCTT ( <b>SEQ ID NO: 318</b> )
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTTATAGGTGAA GATAGGCATCTTTACAGATG GGGGTGGGGGCTGTTGTTAC TGGTGAAGATAGGCATCTAGC CAGAGCTGCCCAGACTCCTTC AGTGAGTAGATAATGTCGGCG AAGGCTGAGAGCAGGGGCTT GGACTGGTACTCTATGCCATG CTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTA ATTGTGTCGAGGCATCGTAAG CTT ( <b>SEQ ID NO: 319</b> )

CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATT TTAGATCAACCAACATATTTA ATATAAAAACCTTTTAATATAC AAACTGTAATCACAATTGCATC CACGTAGCAGCGAGGGAATG GGGTGTTGCAGGAAGCTT (SEQ ID NO: 320)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGA GCGGCAGCTCCAAGAAAAAGA AAAAGCTCCAGAAGCTATCCC AGGAAGATTAGAATGGACATT TTACCAGGTGGGGCAAACCCA CATGATTCCAAACCCACCCTT ATATCCCAATAAAAACAAATTC ACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACTTTAT TTGAGAAAAACAAAAGGTAAA TGTATCAAAAGAGCATACAGG TTAGTGTGCAGGGACGGTCAG TGATGGCTACTGAGGTGAGGA TGTGGGCTAAGCAGGGGCTAA GGCCTTTACTTGGCTCCAGAC TGCTCCGACTTTCCAGCTTCT GGGCCCCCAATCTGGGCACG TGCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTTCTGCTG( SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTACCAAGCTTTCA ACAAGCACTGTTCTTCTAATAA TTCCTGCCACAATATATTAATT TCTTGTAGCCTACTCCAACGT TCCTCTGTCCAACGGCACACT GCTGTCCAGCGTTCACCAAGC TT (SEQ ID NO: 324)

CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACAC CAACATATACAAACACCGAGT GACTACAGTACATGCCGAGGT AAGAAAAGTACATTCGGGGAG ACTATCACTGACACTCAAGCC ATTTTTATTTCCAATATGTTTTG CTTTCACCTTTCCCAGTGCCA AAAAAAAAAAAAACCTAGTCACA AATTGGAGTAAATAAGAATCG GTGCCAGTTGACCT ( <b><u>SEQ ID NO: 325</u></b> )
CTP306B	No significant match		AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTGAGTG AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGG GATAACAAAAGCCTGATTTCT CCACTGTCTCAGAAGGGATT GCAAGTATGG ( <b><u>SEQ ID NO: 326</u></b> )
CTP308KK	No significant match		AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAAG CAAGGCAGTGTCAAAGGCAAC CCTCCCAGCAAGACTTCAGAA AACAGCTGGCAGAACTACAGG ATCTGGTGTCTGGTGTGTAAA ATACTCTCCTCCCTGTTCAAAT GATTCAGAACATGTGCAAAGT GTGCTAGCTTTCATCACATATA CATAACAGCATTATGTATCAAG TTACCCTGTTCAAACAAGGAG CAGGCTTCCTCTTTTTGACTTA AATGACATGAAGTGAGAAAAA AAATGAGAATAACNNTCNNGG GAATTATAGAGGGTTATAATTC TATCCNACTATTTCAATAAAA GCCATCACGGG ( <b><u>SEQ ID NO: 327</u></b> )

CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAACTGTTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTACA TCAGTTTGAATCGATTCAAGAA GGTCATCGCTCAGGCCGTCC CAATACACTGACCTCAAATAT CAGGCTCAAATCTTAGAGTGG GTCAACACAAGCCCACTCAAT GCAGAACAAATCCGAGTCAA CTGCATGAAAAACACGGTGTG TCCGTGTCTGTTGAACTCTT CGCAAGTTTTTGCGAGATTCA GGCATGGTCTTCAAACGCACC CGCCACAGCTTG (SEQ ID NO: <u>328</u> )
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Please substitute **Table 8** with **Table 8** amended as follows:

<b>Table 8</b>			
<b>Band #</b>	<b>Genbank Gene Name</b>	<b>Accession</b>	<b>Sequence</b>
CTP1D	No significant match		GACTGAGACCATTTATTCNAGA CACGCAGCTGACCAAGGAGTG AGGGAGGGACCAGGTGTGCA AGCTAATAAATAGAGGAGGGG GAGACTTCCTGGAGCTGTAGC CATTCAGTCTTCATTCTTCTCA GGCATGAAGGCATCTCTTTTCT GACCAAAGCTT ( <b><u>SEQ ID NO: 329</u></b> )
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAGG TGTAAGAGAAAGGCCCTTCT TCCCTTACTGGGACAAATCTA GAAATCTTACACAGATGTGCAA ATAAAGCTCGCGTGGTGTTT ( <b><u>SEQ ID NO: 330</u></b> )
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCC ACGAAGTTGTTTTAAGGTTACA GCTATGAATAAACATTGTCCAA ACAATGAAGATTTAGGGCTGA AGAACGAGCGTATGTCTACAG TCGAAGCTT ( <b><u>SEQ ID NO: 331</u></b> )
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACTA AGAACTGTGTTATTGAGAAGG TTATCACTGTGGACAACTGGC ACAGAATACACTTCAGAGCTG TCGCCCTGAGGGACAATGACG CCAAGGTCTTTTCTCTAAGTC CTGTTTCTTATAGGCCGAGGG TGGCTCCTGGGAGCAGTAACT GCCAACAGTCGAAGCTT ( <b><u>SEQ ID NO: 332</u></b> )

CTP8A	No significant match	AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTTTGCAGATTGAGCAG ATAATTTCTTTTGAAGGTGATA GTTTCCTAAATTGGATAAAACC GTGGCTGCCATTATATTCACA GAAAATAAAATGAAAACCTCAG TTAATTGTGGATTTG ( <b><u>SEQ ID NO: 333</u></b> )
CTP17G	No significant match	CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAAGTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTTCAAGT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAGCTT ( <b><u>SEQ ID NO: 334</u></b> )
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGG ( <b><u>SEQ ID NO: 335</u></b> )
CTP25D	No significant match	AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGCA TACATAAGTAGATACTCAGAAA TATCTGTTGGATTGTGTTGATT TAATTATTTTGTGTTGCTTCTT TTAAAGATGAGCACTTTCTATT AGATATTTTTTTGATCAAAAAA AAGATATTTTTTTGATCATACA GATTTAAGCAGGATTTTATTA ATTCGTTTCTCTTCCTGGTTGG ( <b><u>SEQ ID NO: 336</u></b> )
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGAA AAATTTCCAGTATGCTATACGG TATCACTAACTATAGTCACTAT AGTATACAGTAGATCCCTAGG ATTTATTCATGATGTACAGTCG AAGCTT ( <b><u>SEQ ID NO: 337</u></b> )

CTP36A	No significant match	CAAGTTTTACCAATTGTTTTAATT ATTGAAACAAAATTAACGTAAG TAGAATCATGTGCAACAGTGT CTCTAACATATGGAAGAGGTA AATATGAATTTTATACAATAAG GTATATTATCCACTGTAACAAA TTTCCAATAATTTGGCATTAT CTTTCACAAAATGTCTCCCAA TTCTAAGCAAAGTATGCAAATT GGAGATTAACCTAAACAGGC ATAATTATCTTCTTATCCAGTTT TTCTGAAGAGACTGAAGAGTT CAGGTCTGACCAAAGCTT (SEQ ID NO: 338)
CTP47G	No significant match	AAGCTTGCACCATACTCCTCCT CTACATATGCTCCCAAATTACC TTCTAAAAAGGCTGTATTAATT TACTTTCACCAGTAGTATTATG AGAGTGCCCATGTCCCTTAGC CTTTTAAATTTCACTATGAGCA ATCTTTAAATCATGTACTAAAT CTTATAGGCAAAGAATAGGGC CTTGCCCCTGCCCCTGTT (SEQ ID NO: 339)
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAAG TTCAGTCACTCCCATCATCTCT AGATTGGAGATTTCCAAATTTA TGGCCTTTCCTAACTTTGAAGT CCTTATTTCTAACTGCCTACTA AGCTT (SEQ ID NO: 340)
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAGA GAAGTAGAAATTGAATGTGGA ACATTAACCATTAATAATCATA CTTTTGAATGTGCTGAGGTCAT GAATTGTTTTTACCTTCTTTGT AATTTGTGTTTTTCAGATTTTCT GTAGTTAGCATATATTCTATAA TCAGAAAAAGATGCTTCAAGTT TTTTGCAGATTTACAGAATTT TGTTT (SEQ ID NO: 341)
CTP53A	No significant match	AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAACA CAAATTACAAAGAAGATAAAAA CAATTCATGACCTCAGCACATT CAAAAGTATGATTTTAAATGGT TAATGTTCCACATTCAATTTCT ACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 342)

CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAGG CCTCGGCTTTTCAAACAG TTGATCAAACAGGATATGCTT CGGCTGAATCTGCTCTCTGGT GCTTCTCTTTAATCGTTTTCTC CTTAAATGGGTTACTTTCTTAC TAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAA GCTT <b>(SEQ ID NO: 343)</b>
CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCTG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAACATTTATT TGGCTGGGTCATGAGTAATT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTCTACTTTGGATCTATCT GTCTTGGAATATCATTTTATTG GGTGTAGAAGTGAGTTATGCA CTCACCGCCTTCCATTCTGGT <b>(SEQ ID NO: 344)</b>
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGACT TGTAAGGCACTGAAGCTAAGG CTAACAGCAACAGAGTCCTTTA TGAAAATAATTTGAGAACCACA ACGCATTCTCTGATGGTGCATT CCCCTGGGACAGTCGAAGCTT <b>(SEQ ID NO: 345)</b>

CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTTAATTTCAAATATTCATT AACCTCTTGTATCAGATTTAAG GCAGAGAAAAGATACACGCCC CTGGTTAACTGAACCGGGGT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTGT CCATGTCACTTCGCTCCAGAG CAGCCGCAAGAGCATCTTAAC ACCTTGTGGCCTGAACTCTCT CCCATCCTCCACTGTACAGTG ATATGACTGAAACCTCATTTAA CCTTTTAGAACTACCAGGAGG AGGTTCCCAAGGATCCCAGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTGTCTCTTAAAGAGCA TCTTAAGTGAGAGATCATGACA ATCTTTGGCCACTCCAGGTTTT CTCATCTACTACATGATCTGTT CCCAACAATAAGCCATTGAAAT TAAAGGTCTCCAGAAGTTTTAT CTGGGGTCTGTGATTGAAAAG AAGGAAAATGAGATGAGAGAC TGCCTACTAAGCTT (SEQ ID NO: 348)
CTP73B	No significant match	CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTACTCA AATATTATACTCAAAACCCCTT ATAGTCTGCTAACTTGTCATGTA GAAACATCTGAAGTAACATGCT GCCTACTAAGCTT (SEQ ID NO: 349)

CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAATTTTTT GAAAACCTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAAATAAATCACCATTTTTTTA (SEQ ID NO: 350)
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAAG TGATTCATTTGTAAATTATCAT GGTTTTCTGCATTAAATGGCC ATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGGG ACCAGGACTCCTAAAGCGACG ANTTTTTNTGGAAGGCTTTGGT CCAAGGCCATTTTTGCCGGCT ATAAACGGGGTCTCCGGAACC AAAGGGAGCACACAGCTCTTC TTAAAATTGAAGGTGTTTACGC CCGAGATGAAACAGAATTCTAT TTGGGCAAGAGATGCGCTTAT GTATATAAAGCAAAAGAACAAC ACAGTCACTCCTGGCGGCAAA CCAAACAAAACCAGNAGTCAT CTGGGGAAAAGTAACTCTGGG CCCATGGAAACAAGTGGCATG NGTTCCGTGCCAAATTCCGAA GCAATNTTCCTGCTAATGCCAT TGGACACAGAATCCGAGTGAT GCTGTACCCCTCANAGGATTT AAAATAACGAANAANCAATAA ATAAATGTGGATTTGCGNTCTT NGG (SEQ ID NO: 352)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTCTGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACCTTCTCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAAC TGGTAAACCCCGATTCCGTCC GATCGC (SEQ ID NO: 353)

CTP79B	No significant match	CATATATATTCTTTTTATTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAAGTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTCAGAGT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT <b>(SEQ ID NO: 354)</b>
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGGCCAT GGTAGCGGTAAAAGCTT <b>(SEQ ID NO: 355)</b>
CTP92A	No significant match	GCACTAAATTCAAACCAATGAC CTCCCATGTTCTAATTCTGATT GTTTAATCCAAGTGGGAGGGT AAACGGGAGACTCTTTGGCCT GTCAGTGACAAAATGGTTTGTA AAAAAGAAAAATAAATACGAT ATACAAGTAAGTATAACTAGCA CTCAAGCTT <b>(SEQ ID NO: 356)</b>
CTP99A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAAGACAAGTTTATATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCGAACTCAAACCT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT <b>(SEQ ID NO: 357)</b>

CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGTT TGATTTTAAGTTTTATATAGTT CTTAGTTTTGAAGAAATCCTTC AAGAACAGTTTCTCTAAAGAGC ATGTTTTAATTAAATGCTAATTA ATTACCTTTCTTAGTTTTCCAAT TTAGTAGGCCACTTTCAATGTC TATTAAAGTGAAATAAACCTTC TGAACCTAAACATTTTTAAATC GATTAAAAATTGTGTCAAAAT <b>(SEQ ID NO: 358)</b>
CTP104I	No significant match	AAGCTTTTTTTTTTCAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTCC ATATGTAGTATGTACAGTGAGA CCACTTTTTAAAAAGCAATGAC TTAGGCAAACCAACCCTAATG GTTTGTTAGACCATTTCCCTGT TTTTAATTAAAAATCATAGGGT TGTGCTTCTGTATAAAGTTTGT ACATTTCACAATGTAAATACT GACATT <b>(SEQ ID NO: 359)</b>
CTP109P	No significant match	ATGCAACCACACGGAATTTATT GAACATTTTCAAGTGATTTTC ATTAAAGGAAGGCTTTTTCGTG CCTATATTGGTTACCATCACTT TTGCCCTATCACAATCTCATG GTGTAGTCCTTGCATGTAGCA GGAACCTCAACAAATGTCTGCT AAATTGACAGATGGAGCCCCA GACGACCTAAACTTGCACCTT AGAAGCACTTACTTCATCCTGA GCTATTATGAATAAGGAACTCA AGTGACTGTTAAAGCATTCTA CTGATGAGTTGGTAATGTTCTA AAGCAACATATCTCAAAGGAAA GGATATTGAGTTTGTCTCCACC ATAAAATCCTATTTTTAAACAAA GGTACTACTTAAAAATGGTCTT CCAAAGGCCTCAGCAGAGGTT CTAAAGAGATGTGACAATATG CCGAAGCTT <b>(SEQ ID NO: 360)</b>



CTP110A	No significant match	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCAACA AGACACCCTGCACAGCAGGGA CGGGGACAGGGAGGATGACC TCTTAGGGCCTGTGCCTTCGC AGAGGTGCTCGGCGGATGGG TGTGGTCTTCTTGGGTGTCTC CTCTTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 361)
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGAA CCACCATGCCCAGCCTGTTCT TTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGTATTGGATCTATTTT TTAAATAGGGACTAAATACAG ACCATTTTGTTAGAGTGAAATG CCAAACAAGAACGAGATTTTTC TCTTGGCT (SEQ ID NO: 362)
CTP116A	No significant match	AAAAGAGCATACTTATCAGTTG AATGGGGATAGAGGTTTTAGA TATTTTCCAAAATATTTATAAAA CACTTCATTGTTGAGAAATCAC TTACAGAATGGTGGCTATCAAA CAAATAATTATAAATTTTAAAG CACAAGTCACATGTTTTGTAAC TCCTGTGTGAATTTATTTTAGC TGTGACATTTAATTGAAAACAT CAGATATGTTTTGGAAAAGTCT TAATTTGAGAACAACCTGAAGGA AGTTAATCCAGAATCTATATGT AGTTAGCTATTAATGATGATGC TTTATTGACAGTATATTGCTAA TATATTTCTTCATGAAATCTGA AGTTAAATAGTTTCGTTGTGGA ATAGTGTCCTGTAAACATTTCC CTTACGAAGTTCAATAAACCAG CTTTGCCATAAAAAAAAAAAGCT T (SEQ ID NO: 363)

CTP124B	No significant match	<p>           ATGGCAAAGCTGGTTTATTGAA            CTTTCGTAAGGGAAATGTTACA            GTGACACTATTCCACAACGAA            ATTATTTAACTTCAGATTTTCAT            GAAGAAATATATTAGCAATATA            CTGTCAATAAAGCATCATCATT            AATAGCTAACTACATATAGATT            CTGGATTAACCTTCCTTCAGTTG            TTCTCAAATTAAGACTTTTCCA            AAACATATCTGATGTTTTCAAT            TAAATGTCACAGCTAAAATAAA            TTCACACAGGAGTTACAAAACA            TGTGACTTGTGCTTTAAAAATT            TATAATTATTTGTTTGATAGCC            ACCATTCTGTAAGTGATTTCTC            AACAAATGAAGTGTTTTATAAAT            ATTTTGGAAAATATCTAAAACC            TCTATCCCCATTCAACTGATAA            GTATGCTCTTTTAAAAAAAAAA            AGCTT (<b>SEQ ID NO: 364</b>)         </p>
CTP126A	No significant match	<p>           AAAGAAAGTAATTATGGAACATA            GATTTTTAACATTGTAAAATAC            TAAATGATCCTTCAGTTGTAAG            TTGATATATATTTGTAACCTTT            GTGAAATTGTATCCTTATGAAA            ATACCACTTTTGTGGAAGAGA            GAATCCAACATATGTAATATTTA            ATTAACAATCCATGTTTACC            CTATCCCTGCTCAATTAAACAG            TGTATATAGGTCTAATAATAGC            TCTGGAGCAACTTTTATCATGA            GTCAAATATATTAACACATTG            ATGTCTTCTTGGTATATCTGAA            AACAAGAGGTAGAAAGTCCTGT            TGAGAGTCTTTAAATAAACTA            TTTTACAAATGTAAAAAAAAAA            AAGCTT (<b>SEQ ID NO: 365</b>)         </p>
CTP133B	No significant match	<p>           CCAAAAAGAGCCATGCCCAGA            GGGAAAGTTGGAAACGAAAGC            CAAGTTTTCATTTAAAAGGAAA            CANTAAAGAGGTTAGCCAGAG            AAACCTGAACCAAAGAAAAGA            CAGCACGCTGTTTCAAGATGGT            CAATAAGAGCCTAAACGGTA            CCCTCGGAATGAAGCTT (<b>SEQ ID NO: 366</b>)         </p>

CTP134A	No significant match	CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT <b>(SEQ ID NO: 367)</b>
CTP143B	No significant match	AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGAG AGAGGCAGCAGCAGACTCCCT GCTGAGCTGGGAGCCAACTTG GGACTCGATGCCGGGACCCC AGGATCATTACCCGAAGCTT <b>(SEQ ID NO: 368)</b>
CTP144B	No significant match	GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAGG GAAACTCCAGCCACAGTTGAG GGAAGGCCACCTGTTGGCTCT GGGGCAGCAGGTCATCCAGT GGGCTTCAGGAGTCACCAGGC CTCTGACCAGTTCCTCCCCAC CAAGCAGTTTCAGAGTTGTCC GCCAAGTCTATTTACACCTCT CGTGTATGCCGAAGCTT <b>(SEQ ID NO: 369)</b>
CTP145B	No significant match	GGA CTGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATGT CTTCTGTTATGCCGAAGCTT <b>(SEQ ID NO: 370)</b>

CTP149B	No significant match	AGGAAGAATAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGCC TGTGCCTTCGCAGAGGTGCTC GGCGGATGGGTGTGGTCTTCT TGGGTGTCTCCTCTTCTGTCAT CTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 371</u></b> )
CTP150A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAAGACAAGTTTACATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCGAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 372</u></b> )
CTP154A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAAGACAAGTTTATATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCGAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 373</u></b> )

CTP164A	No significant match	AAGCTTCGGCATAACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACACGGTTTGGTTA CAGGACTTCTGTGCATTGTAAA ACATAAACAGCATGGAAAAGG TTAAATACCTGTGTGCAGATTG TAAGATCTGGTCCGGACTTGC TGTGTATATTGTAACGTTAAGT GAAAAAGAACCCCCCTTTGTAT CATAGTCATGCGGTCTTATGTA TGATAAACAGTTGAATAATTTG TCCTCAGACTCTTTACTATGCT TTTTTAAAATTAAGAAAAATGTA AATATAGTAAAAATCTTCCTAT GCAATTAACCTGG <b>(SEQ ID NO: 374)</b>
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAATTTAAAT GTTTGCAATTAACTGGTTTGT TAAATATC <b>(SEQ ID NO: 375)</b>
CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTTCA GAGACTGCACCTCTTAAATGT TCCTTTTCACATCTGTTTAGTG GATCAAAAGCTT <b>(SEQ ID NO: 376)</b>
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAAT TTATGGAGAAGCCCTAAAGTT GCTTTCCCCAAATCACAAATCT GATTCAAGAGAAGGAAAAAAA TGATGAAAAACATCTCATCACA CAAACTCAGTGTGGTGTCTC TGATAGTCATCAGCCAGCAGA AGCTT <b>(SEQ ID NO: 377)</b>

CTP202C	No significant match	AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCACC ACTTCAGATAGTAACTAAAGTA AATTTTAAATTTTATAAGAATAA AGTAATCCCTGAAAAGAATTCA CTTTTTTCCCAGAAGAAGCTTA TAATTAATAAAAAAAAAAGCTT <b>(SEQ ID NO: 378)</b>
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATTT TTAGATCAACCAAACATATTTA ATATAAAAACCTTTTAAATATACA AACTGTAATCACAATTGCATCC ACGTAGCAGCGAGGGAATGG GGTGTTCAGGAAGCTT <b>(SEQ ID NO: 379)</b>
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGAG CGGCAGCTCCAAGAAAAAGAA AAAGCTCCAGAAGCTATCCCA GGAAGATTAGAATGGACATTTT ACCAGGTGGGGCAAACCCACA TGATTCCAAACCCACCCTTATA TCCCAATAAAAACAAATTCACA GG <b>(SEQ ID NO: 380)</b>
CTP222D	No significant match	AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTTCTGCTG <b>(SEQ ID NO: 381)</b>

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTCAAGT AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGGG ATAACAAAAGCCTGATTTCTCC ACTGTCTCAGAAGGGATTTC AAGTATGG ( <b>SEQ ID NO: 382</b> )
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGT TAAATGGAACCTGGAACCTC TTCCTGGGATTATTCCTTAAGC AAGGCAGTGTCAAAGGCAACC CTCCCAGCAAGACTTCAGAAA ACAGCTGGCAGAACTACAGGA TCTGGTGTCTGGTGTGTAAAAT ACTCTCCTCCCTGTTCAAATGA TTCAGAACATGTGCAAAGTGT GCTAGCTTTCATCACATATACA TAACAGCATTATGTATCAAGTT ACCCTGTTCAAACAAGGAGCA GGCTTCCTCTTTTTGACTTAAA TGACATGAAGTGAGAAAAAAA ATGAGAATAACNNTCNNGGGA ATTATAGAGGGTTATAATTCTA TCCNACTATTTCAATAAAAGC CATCACGGG ( <b>SEQ ID NO: 383</b> )
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAA GGTAAACTGTTGCCGAAGTT GCTGCGTTACAAGAGCGTATC CCAGAAACCATAAGGCTACAA CGCCGAAATTGGGAGCTACAT CAGTTTGAATCGATTCAAGAAG GTCATCGCTCAGGCCGTCCCA ATACACTGACCTCAAACATCA GGCTCAAATCTTAGAGTGGGT CAACACAAGCCCACTCAATGC AGAACAAATCCGAGTCAAAC GCATGAAAAACACGGTGTGTC CGTGTCTGTTGAACTCTTCG CAAGTTTTTGCGAGATTCAGG CATGGTCTTCAAACGCACCCG CCACAGCTTG ( <b>SEQ ID NO: 384</b> )